INSTALLER/CONSUMER SAFETY INFORMATION

PLEASE READ THIS MANUAL BEFORE INSTALLING AND USING APPLIANCE

WARNING!
IF THE INFORMATION IN THIS MANUAL IS NOT FOLLOWED EXACTLY, A FIRE OR EXPLOSION MAY RESULT CAUSING PROPERTY DAMAGE, PERSONAL INJURY OR LOSS OF LIFE.

FOR YOUR SAFETY
Installation and service must be performed by a qualified installer, service agency or the gas supplier.

WHAT TO DO IF YOU SMELL GAS:

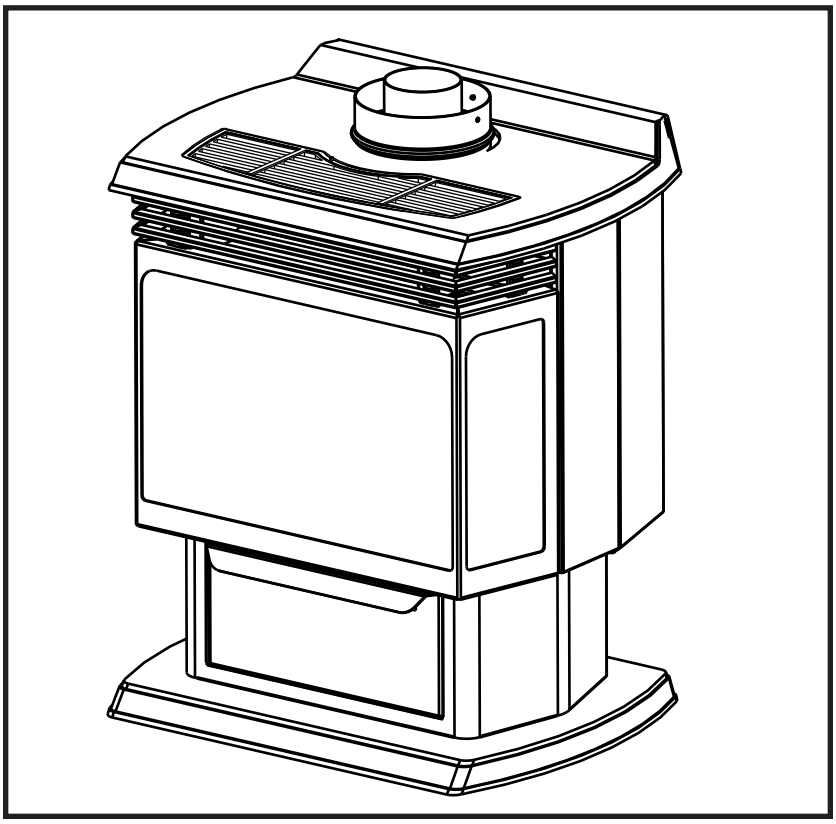
- Do not try to light any appliance.
- Do not touch any electric switch; do not use any phone in your building.
- Immediately call your gas supplier from your neighbor's phone. Follow the gas suppliers instructions.
- If you cannot reach your gas supplier call the fire department.

DO NOT STORE
OR USE GASOLINE OR
OTHER FLAMMABLE VAPORS
AND LIQUIDS IN THE VICINITY
OF THIS OR ANY OTHER
APPLIANCE.

VERMONT CASTINGS

Freestanding Direct Vent Fireplace

Models: RFSDV24, RFSDV34



Installation Instructions and Homeowner's Manual

DESIGN CERTIFIED

CERTIFIED

INSTALLER: Leave this manual with the appliance.
CONSUMER: Retain this manual for future reference.

10003550 6/08 Rev. 6

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PLEASE READ THE INSTALLATION & OPERATING INSTRUCTIONS BEFORE USING THIS APPLIANCE.
Thank you and congratulations on your purchase of a Vermont Castings fireplace.
IMPORTANT: Read all instructions and warnings carefully before starting installation. Failure to follow these instructions may result in a possible fire hazard and will void the warranty.

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Installation & Operating Instructions

This gas fireplace should be installed by a qualified installer in accordance with local building codes and with current CSA-B149.1 Installation codes for Gas Burning Appliances and Equipment. If the unit is being installed in a mobile home, the installation should comply with the current CAN/USA Z240.4 code. For USA Installations follow local codes and/or the current National Fuel Gas Code. ANSI Z223.1/NFPA 54.

FOR SAFE INSTALLATION AND OPERATION PLEASE NOTE THE FOLLOWING:

1 . This fireplace gives off high temperatures and should be located out of high traffic areas and away from furniture and draperies.
2. Children and adults should be alerted to the hazards of the high surface temperatures of this fireplace and should stay away to avoid burns or ignition of clothing.
3. **CAUTION: Due to high glass surface temperature children should be carefully supervised when in the same room as fireplace.**

4. Under no circumstances should this fireplace be modified. Parts removed for servicing should be replaced prior to operating this fireplace again.
5. Installation and any repairs to this fireplace must be performed by a qualified installer, service agency or gas supplier. A professional service person should be contacted to inspect the fireplace annually. More frequent cleaning may be required due to excess lint and dust from carpeting, bedding material, etc.
6. Control compartments, burners and air passages in this fireplace should be kept clean and free of dust and lint. Make sure that the gas valve and pilot light are turned off before you attempt to clean this fireplace.
7. The venting system (chimney) of this fireplace should be checked at least once a year and if needed your venting system should be cleaned.
8. Keep the area around your fireplace clear of combustible materials, gasoline and other flammable vapour and liquids. This fireplace should not be used as a dry-ing rack for clothing, nor should Christmas stockings or decorations be hung on or around the fireplace.
9. Under no circumstances should any solid fuels (wood, coal, paper or cardboard etc.) be used in this fireplace.
10. The flow of combustion and ventilation air must not be obstructed in any way.
11. When the fireplace is installed directly on carpeting, vinyl tile or any combustible material other than wood, this fireplace must be installed on a metal or wood panel extending the full width and depth of the fireplace.
12. This fireplace requires adequate ventilation and combustion air to operate properly.
13. This fireplace must not be connected to a chimney flue serving a separate solid fuel burning fireplace.
14. When the fireplace is not in use it is recommended that the gas control valve be left in the **OFF** position.

RFSDV24 / RFSDV34
Certified To

ANSI Z21.88-2005 / CSA 2.33-2005
Vented Gas Fireplace Heaters

This appliance may be installed in an aftermarket permanently located, manufactured home or mobile home, where not prohibited by local codes.
This appliance is only for use with the type of gas indicated on the rating plate. This appliance is not convertible for use with other gases, unless a certified kit is used.
Model RFSDV34RMH can be installed in manufactured (mobile) homes by OEM.

IMPORTANT:
PLEASE REVIEW THE FOLLOWING CAREFULLY

Remove any plastic from from parts before turning the fireplace ON.
It is normal for fireplaces fabricated of steel to give off some expansion and/or contraction noises during the start up or cool down cycle. Similar noises are found with your furnace heat exchanger or car engine.
It is not unusual for your gas fireplace to give off some odor the first time it is burned. This is due to the curing of the paint and any undetected oil from the manufacturing process.
Please ensure that your room is well ventilated-open all windows.
It is recommended that you burn your fireplace for at least ten (10) hours the first time you use it. If the optional fan kit has been installed, place the fan switch in the “OFF” position during this time.

Proposition 65 Warning: Fuels used in gas, woodburning or oil fired appliances, and the products of combustion of such fuels, contain chemicals known to the State of California to cause cancer, birth defects and other reproductive harm.
California Health & Safety Code Sec. 25249.6

Installation & Operating Instructions

Requirements for the Commonwealth of Massachusetts

All gas fitting and installation of this heater shall only be done by a licensed gas fitter or licensed plumber.

For all side wall horizontally vented gas fueled equipment installed in every dwelling, building or structure used in whole or in part for residential purposes, including those owned or operated by the Commonwealth and where the side wall exhaust vent termination is less than seven (7) feet above finished grade in the area of the venting, including but not limited to decks and porches, the following requirements shall be satisfied:

Installation of Carbon Monoxide Detectors

At the time of installation of the side wall horizontal vented gas fueled equipment, the installing plumber or gas fitter shall observe that a hard wired carbon monoxide detector with an alarm is installed on each additional level of the dwelling, building or structure served by the side wall horizontally vented gas fueled equipment. It shall be the responsibility of the property owner to secure the services of qualified licensed professionals for the installation of hard wired carbon monoxide detectors.

In the event that the side wall horizontally vented gas fueled equipment is installed in a crawl space or an attic, the hard wired carbon monoxide detector with alarm and battery back-up may be installed on the next adjacent floor level.

In the event that the requirements of this subdivision can not be met at the time of completion of installation, the owner shall have a period of thirty (30) days to comply with the above requirements; provided, however, that during said thirty (30) day period, a battery operated carbon monoxide detector with an alarm shall be installed.

Approved Carbon Monoxide Detectors

Each carbon monoxide detector as required in accordance with the above provisions shall comply with NFPA 720 and ANSI/UL 2034 listed and IAS certified.

Signage

A metal or plastic identification plate shall be permanently mounted to the exterior of the building at a minimum height of eight (8) feet above grade directly in line with the exhaust vent terminal for the horizontally vented gas fueled heating appliance or equipment. The sign shall read, in print size no less than one-half (1/2) inch in size, **"GAS VENT DIRECTLY BELOW, KEEP CLEAR OF ALL OBSTRUCTIONS".**

Inspection

The state or local gas inspector of the side wall horizontally vented gas fueled equipment shall not approve the installation unless, upon inspection, the inspector observes carbon monoxide detectors and signage installed in accordance with the provisions of 248 CMR 5.08(2)(a)1 through 4.

Exemptions

The following equipment is exempt from 248 CMR 5.08(2)(a)1 through 4:

- The equipment listed in Chapter 10 entitled "Equipment Not Required To Be Vented" in the most current edition of NFPA 54 as adopted by the Board; and
- Product Approved side wall horizontally vented gas fueled equipment installed in a room or structure separate from the dwelling, building or structure used in whole or in part for residential purposes.

MANUFACTURER REQUIREMENTS

Gas Equipment Venting System Provided

When the manufacturer of Product Approved side wall horizontally vented gas equipment provides a venting system design or venting system components with the equipment, the instructions provided by the manufacturer for installation of the equipment and the venting system shall include:

- Detailed instructions for the installation of the venting system design or the venting system components; and
- A complete parts list for the venting system design or venting system.

Gas Equipment Venting System NOT Provided

When the manufacturer of a Product Approved side wall horizontally vented gas fueled equipment does not provide the parts for venting the flue gases, but identifies "special venting systems", the following requirements shall be satisfied by the manufacturer:

- The referenced "special venting system" instructions shall be included with the appliance or equipment installation instructions; and
- The "special venting systems" shall be Product Approved by the Board, and the instructions for that system shall include a parts list and detailed installation instructions.

A copy of all installation instructions for all Product Approved side wall horizontally vented gas fueled equipment, all venting instructions, all parts lists for venting instructions, and/or all venting design instructions shall remain with the appliance or equipment at the completion of the installation.

Fireplace Dimensions

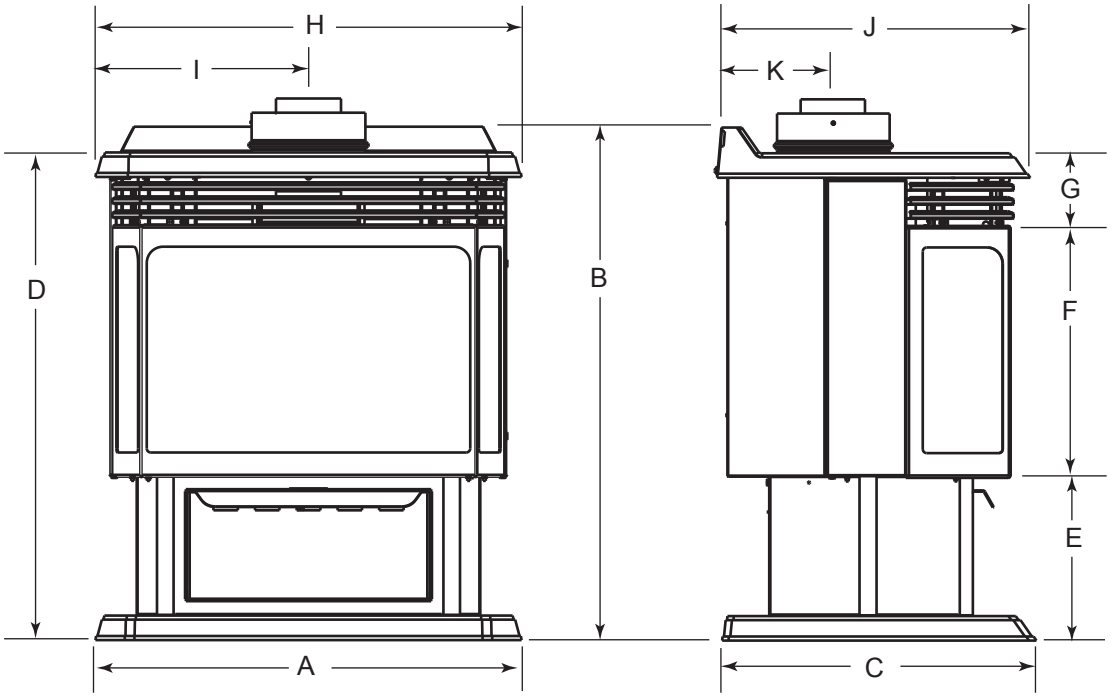


Fig. 1 Fireplace specifications and framing dimensions.

Ref.	RFSDV24	RFSDV34
A	23” (584 mm)	26¼” (667 mm)
B	28¾” (730 mm)	31½” (800 mm)
C	16⅝” (422 mm)	19⅜” (492 mm)
D	27⅜” (695 mm)	30” (762 mm)
E	9½” (241 mm)	10” (254 mm)
F	13⅞” (352 mm)	15½” (394 mm)
G	4” (102 mm)	4½” (114 mm)
H	23” (584 mm)	26¼” (667 mm)
I	11½” (292 mm)	13⅛” (333 mm)
J	16⅝” (422 mm)	19½” (495 mm)
K	6” (152 mm)	6⅜” (162 mm)

Locating Your Fireplace

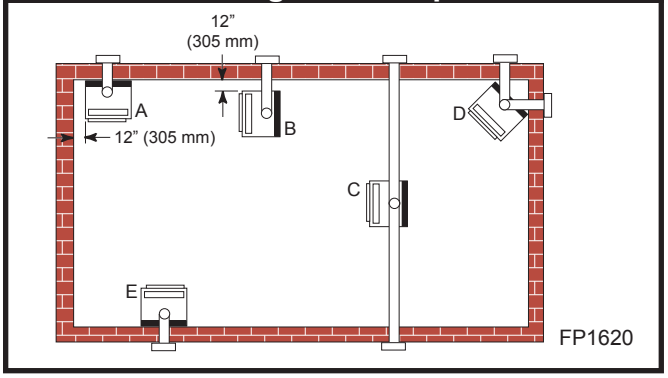


Fig. 2 Locate gas fireplace.

A) Flat on wall* B) Room Divider* C) Island
D) Cross Corner E) Flat on wall corner

Note (Fig. 2): *(A) and (B) must maintain a 12” (305 mm) clearance between the wall and side glass of fireplace.

There is a minimum vertical rise required for the venting, which varies depending on the application. The maximum horizontal run also has restrictions. Before starting the installation, become familiar with venting instructions starting on Page 9.

Clearance to Combustibles

Top of Unit to Ceiling ..... 36” (914 mm)

Appliance

Back ..... 0” (0 mm)
Side ..... 12” (305 mm)
Floor ..... 0” (0 mm)
Corner ..... 0” (0 mm) to Back Edges
Vent Pipe ..... 1” (25 mm)

High Elevations

Input ratings are shown in BTU per hour and are certified without deration for elevations up to 4,500 feet (1,370 m) above sea level.

For elevations above 4,500 feet (1,370 m) in USA, installations must be in accordance with the current ANSI Z223.1/NFPA 54 and/or local codes having jurisdiction.

In Canada, please consult provincial and/or local authorities having jurisdiction for installations at elevations above 4,500 feet (1,370 m).

Gas Inlet and Manifold Pressures

	Natural	LP (Propane)
Inlet Minimum	5.5” w.c.	11.0” w.c.
Inlet Maximum	14.0” w.c.	14.0” w.c.
Manifold Pressure	3.5” w.c.	10.0” w.c.

Gas Specifications

Model	Fuel	Gas Control	Max. Input BTU/h	Min. Input BTU/h
RFSDV24RN	Nat	Millivolt Hi/Lo	20,000	14,000
RFSDV24RP	Prop	Millivolt Hi/Lo	20,000	15,000
RFSDV34RFN	Nat	Comfort Control	30,000	21,000
RFSDV34RFP	Prop	Comfort Control	30,000	22,500

Preparation

The use of wallpaper adjacent to this fireplace is not recommended, as the high heat given off by this fireplace may adversely affect the binders in the adhesive used to apply the wallpaper.

Before beginning, remove the window frame assembly from the fireplace. Also check to make sure there is not hidden damage to the fireplace. Take a minute and plan out the gas, vent and electrical supply. Refer to Window Frame Assembly Removal Section.

Gas Line Installation

When purging gas line, the front window frame assembly must be removed.

The gas pipeline can be brought in through the rear of the fireplace as well as the bottom. Knockouts are provided on the bottom behind the valve to allow for the gas pipe installation and testing of any gas connection. It is most convenient to bring the gas line in from the rear right side of the valve as this allows fan installation or removal without disconnecting the gas line.

The gas line connection can be made with properly tinned 3/8” copper tubing, 3/8” rigid pipe or an approved flex connector. Since some municipalities have additional local codes, it is always best to consult your local authority and the National Fuel Gas Code, ANSI Z223.1/NFPA 54 in the USA or the CSA-B149.1 installation codes.

Always check for gas leaks with a mild soap and water solution. Do not use an open flame for leak testing.

The gas control is equipped with a captured screw type pressure test point, therefore it is not necessary to provide a 1/8” test point up stream of the control.

When using copper or flex connector use only approved fittings. Always provide a union when using black iron pipe so that the gas line can be easily disconnected for burner or fan servicing . See gas specifications for pressure details and ratings.

The fireplace valve must not be subjected to any test pressures exceeding 1/2 psi. Isolate or disconnect this or any other gas appliance control from the gas line when pressure testing.

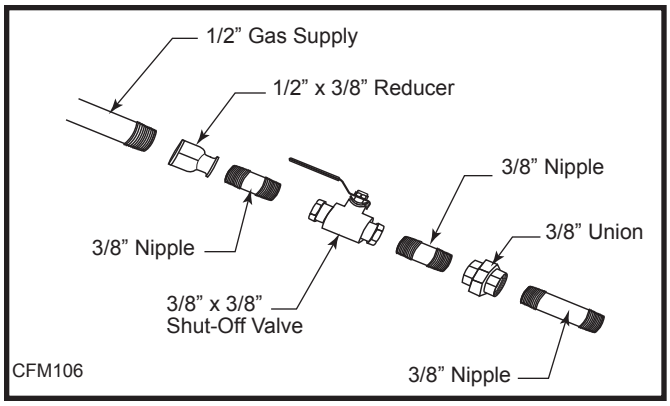


Fig. 3 Typical gas line connection.

Installation of Remote Switch for RN/RP Gas Valve

NOTES: The remote ON/OFF switch cannot be fitted to units using the Honeywell Radio Frequency control valve.

If the fireplace has been fitted with the Radio Frequency Control Valve, the ON/OFF function is controlled by the remote handset. (Refer to the addendum or instructions packaged with the remote handset.)

Install the ON/OFF switch assembly on either the rear right or rear left side of the fireplace.

1. Remove the screw at the back of the cabinet top either on the left or the right side of the fireplace.
2. Position switch assembly onto the back of the fireplace, then fasten two (2) screws as shown in Figure 3.
3. Attach wiring under the clips on the rear casing (Fig. 4) and install wiring through the rear opening of the fireplace before connecting to the valve as shown in Figure 5.

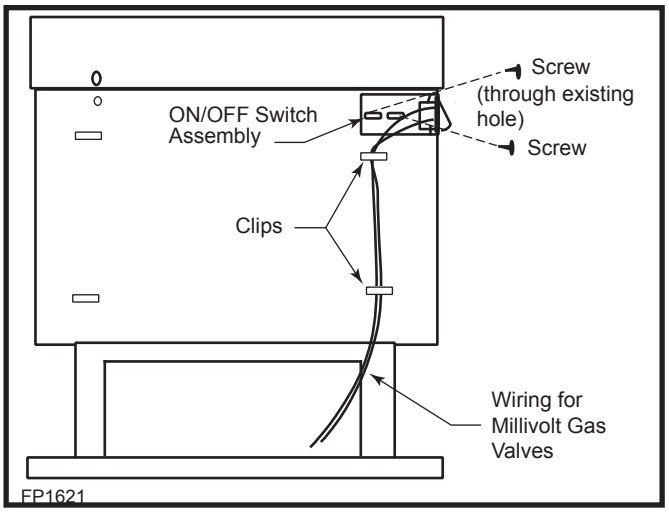


Fig. 4 Attach wiring under clips on rear casing.

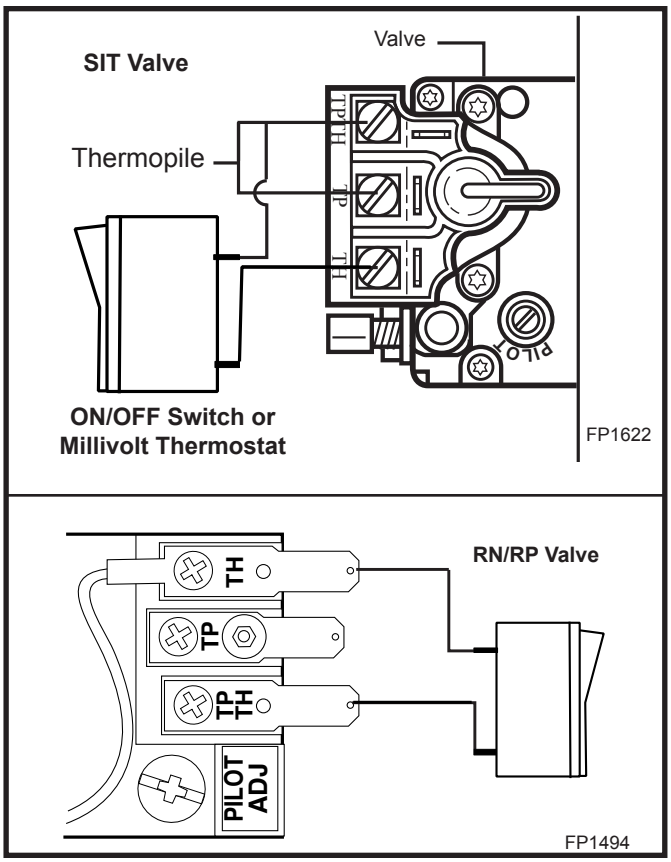
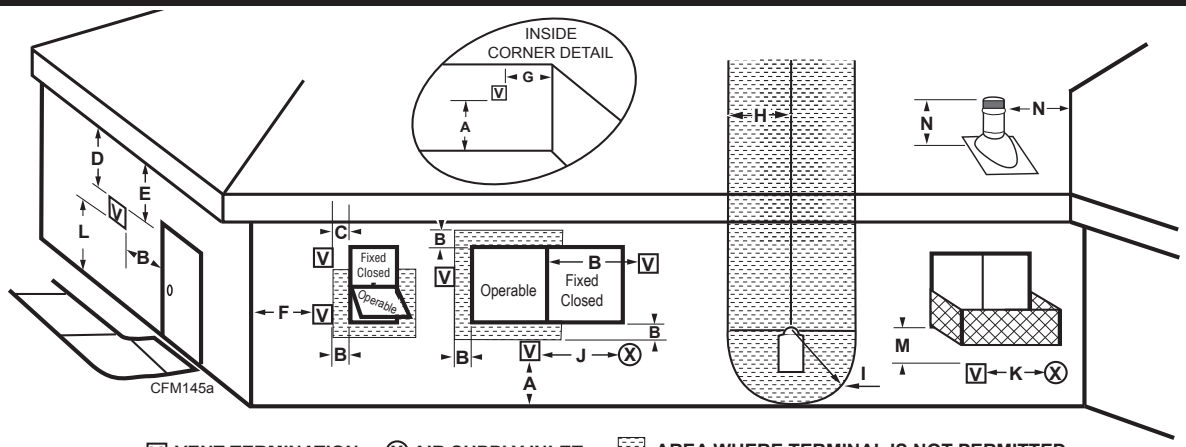


Fig. 5 Install wiring to switch before connecting to valve.

General Venting Information - Termination Location



V VENT TERMINATION X AIR SUPPLY INLET AREA WHERE TERMINAL IS NOT PERMITTED

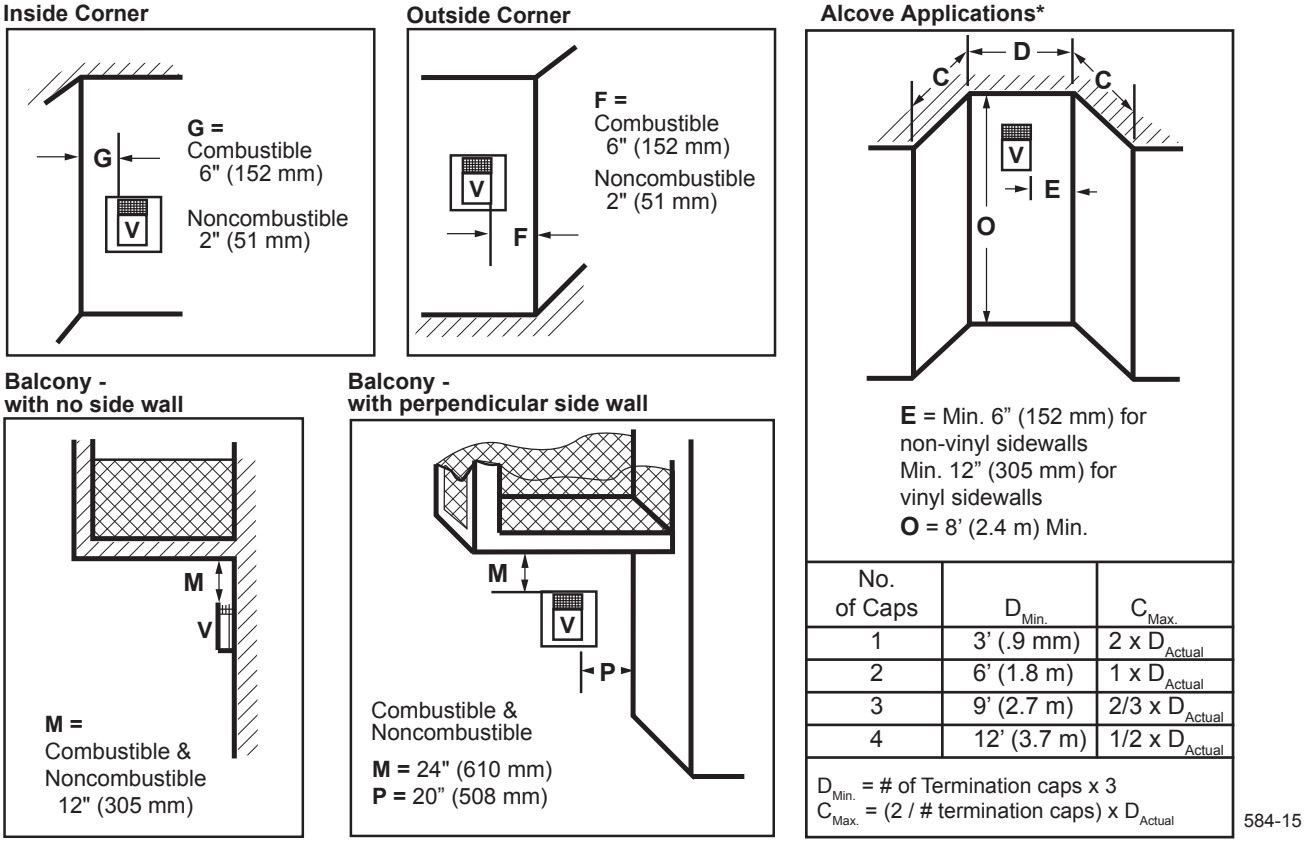
	Canadian Installations[1]	US Installations[2]
A = Clearance above grade, veranda, porch, deck, or balcony	12” (30cm)	12” (30cm)
B = Clearance to window or door that may be opened	6” (15cm) for appliances < 10,000Btuh (3kW), 12” (30cm) for appliances > 10,000 Btuh (3kW) and < 100,000 Btuh (30kW), 36” (91cm) for appliances > 100,000 Btuh (30kW)	6” (15cm) for appliances < 10,000 Btuh (3kW), 9” (23cm) for appliances > 10,000 Btuh (3kW) and < 50,000 Btuh (15kW), 12” (30cm) for appliances > 50,000 Btuh (15kW)
C = Clearance to permanently closed window	12” (305mm) recommended to prevent window condensation	12” (305mm) recommended to prevent window condensation
D = Vertical clearance to ventilated soffit located above the terminal within a horizontal distance of 2’ (610mm) from the center line of the terminal	18” (458mm)	18” (458mm)
E = Clearance to unventilated soffit	12” (305mm)	12” (305mm)
F = Clearance to outside corner	see next page	see next page
G = Clearance to inside corner (see next page)	see next page	see next page
H = Clearance to each inside of center line extended above meter/regulator assembly	3’ (91cm) within a height of 15’ (5m) above the meter/regulator assembly	3’ (91cm) within a height of 15’ (5m) above the meter/regulator assy
I = Clearance to service regulator vent outlet	3’ (91cm)	3’ (91cm)
J = Clearance to nonmechanical air supply inlet to building or the combustion air inlet to any other appliances	6” (15cm) for appliances < 10,000 Btuh (3kW), 12” (30cm) for appliances > 10,000 Btuh (3kW) and < 100,000 Btuh (30kW), 36” (91cm) for appliances > 100,000 Btuh (30kW)	6” (15cm) for appliances < 10,000 Btuh (3kW), 9” (23cm) for appliances > 10,000 Btuh (3kW) and < 50,000 Btuh (15kW), 12” (30cm) for appliances > 50,000 Btuh (15kW)
K = Clearance to a mechanical air supply inlet	6’ (1.83m)	3’ (91cm) above if within 10 feet (3m) horizontally
L = Clearance above paved sidewalk or paved driveway located on public property	7’ (2.13m)†	7’ (2.13m)†
M = Clearance under veranda, porch, deck or balcony	12” (30cm)‡	12” (30cm)‡
N = Clearance above a roof shall extend a minimum of 24” (610mm) above the highest point when it passes through the roof surface, and any other obstruction within a horizontal distance of 18” (450mm).		

1 In accordance with the current CSA-B149 Installation Codes
2 In accordance with the current ANSI Z223.1/NFPA 54 National Fuel Gas Codes
† A vent shall not terminate directly above a sidewalk or paved driveway which is located between two single family dwellings and serves both dwellings
‡ only permitted if veranda, porch, deck or balcony is fully open on a minimum 2 sides beneath the floor:
NOTE: 1. Local codes or regulations may require different clearances.
2. The special venting system used on Direct Vent Fireplaces are certified as part of the appliance, with clearances tested and approved by the listing agency.
3. CFM Corporation assumes no responsibility for the improper performance of the appliance when the venting system does not meet these requirements.

Fig. 6 Termination location requirements.

Termination Clearances

Termination clearances for buildings with combustible and noncombustible exteriors.



No. of Caps	$D_{Min.}$	$C_{Max.}$
1	3' (.9 mm)	2 x D_{Actual}
2	6' (1.8 m)	1 x D_{Actual}
3	9' (2.7 m)	2/3 x D_{Actual}
4	12' (3.7 m)	1/2 x D_{Actual}

$D_{Min.}$ = # of Termination caps x 3
$C_{Max.}$ = (2 / # termination caps) x D_{Actual}

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***NOTE:** Termination in an alcove space (spaces open only on one side and with an overhang) is permitted with the dimensions specified for vinyl or non-vinyl siding and soffits. 1. There must be a 3' (914 mm) minimum between termination caps. 2. All mechanical air intakes within 10' (1 m) of a termination cap must be a minimum of 3' (914 mm) below the termination cap. 3. All gravity air intakes within 3' (914 mm) of a termination cap must be a minimum of 1' (305 mm) below the termination cap.

Fig. 6a Termination clearances.

General Information on Assembling Vent Pipes

Canadian Installations:

The venting system must be installed in accordance with the current CSA-B149 .1 installation code.

USA Installations:

The venting system must conform with local codes and/ or the current National Fuel Gas code ANSI Z223.1/ NFPA 54.

Only venting components manufactured by CFM Corporation can be used in Direct Vent systems.

Twist Lock Pipes

When using CFM Corporation twist-lock pipe it is not necessary to use sealant on the joints. The only areas of the venting system that need to be sealed with high temperature silicone sealant are the collars on the fireplace and termination, and the sliding joint of any telescopic vent section used in the system.

To join the twist lock pipes together, simply align the beads of the male end with the grooves of the female end, then while bringing the ends together, twist the pipe until the flange on the female end contacts the external flange on the male end. It is recommended that you secure the joints with three (3) sheet metal screws, however this is not mandatory with twist lock pipe.

To make it easier to assemble the joints we suggest putting a lubricant (Vaseline or similar) on the male end of the twist lock pipe prior to assembly.

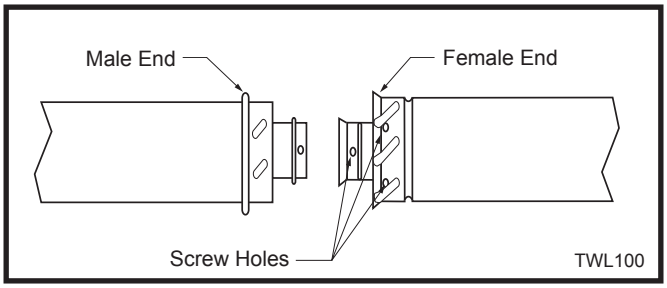


Fig. 7 Twist-lock pipe joints.

How to Use the Vent Graph

The vent chart should be read in conjunction with the following vent installation instructions to determine the relationship of the vertical and horizontal dimensions of the vent system.

1. Determine the height of the center of the horizontal vent pipe exiting through the outer wall. Using this dimension on the Sidewall Vent Graph (Fig. 8), locate the point intersecting with the slanted graph line.
2. From the point of this intersection, draw a vertical line to the bottom of the graph.
3. Select the indicated dimension, and position the fireplace in accordance with same.

Example A:

If the vertical dimension from the floor of the fireplace is 11' (3.4m) the horizontal run to the face of the outer wall must not exceed 14' (4.3 m).

Example B:

If the vertical dimension from the floor of the unit is 7' (2.14m), the horizontal run to the face of the outer wall must not exceed 8½' (2.6 m).

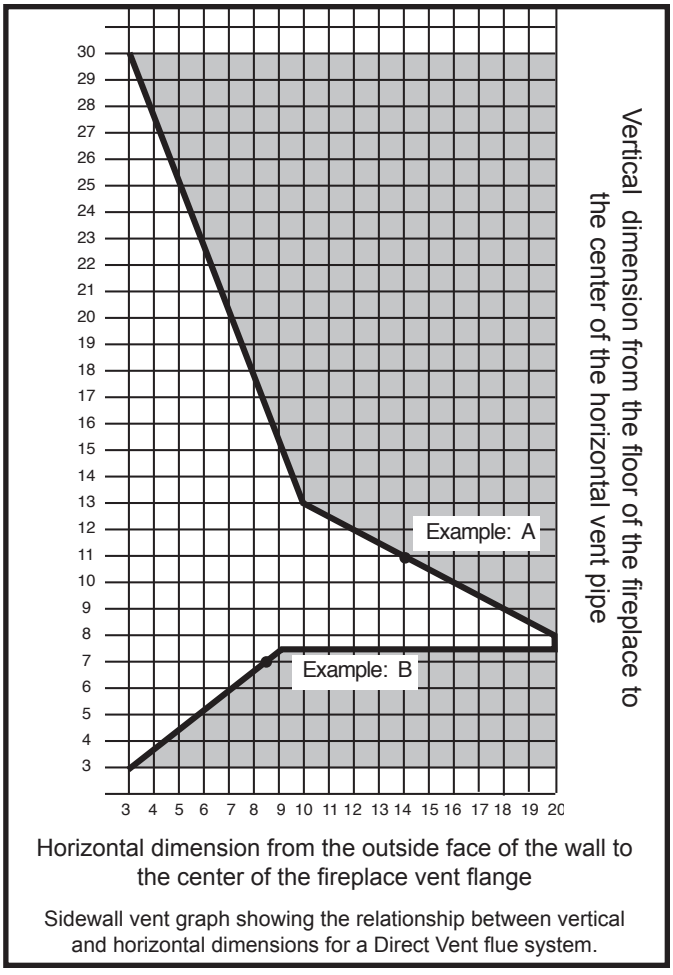


Fig. 8 Sidewall venting graph. (Dimensions in feet)

Vertical Sidewall Applications

Since it is very important that the venting system maintain its balance between the combustion air intake and the flue gas exhaust, certain limitations as to vent configurations apply and must be strictly adhered to.

The vent graph showing the relationship between vertical and horizontal side wall venting will help to determine the various dimensions allowable.

Minimum clearance between vent pipes and combustible materials is one 1" (25mm) on top, bottom and sides unless otherwise noted.

When the vent termination exits through foundations less than 20" (508 mm) below siding outcrop, the vent pipe must flush up with the siding.

It is always best to locate the fireplace in such a way that minimizes the number of offsets and horizontal vent length of vent pipe from the flue collar of the fireplace to the face of the outer wall.

Horizontal plane means no vertical rise exists on this portion of the vent assembly.

- The maximum number of 90° elbows per side wall installations is three (3).
- For RFSDV24 and RFSDV34 models, the maximum horizontal rn for a minimum 12" (305 mm) vertical rise is 3' (914 mm). (Fig. 9)

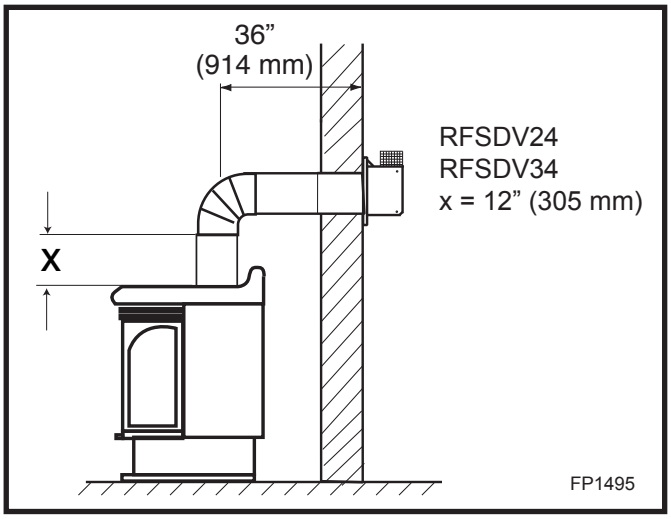


Fig. 9 Maximum horizontal run.

- If a 90° elbow is used in the horizontal vent run (level height maintained) the maximum horizontal vent length is reduced by 36" (914 mm). (Fig. 10) This does not apply if the 90° elbows are used to increase or redirect a vertical rise. (Fig. 11)

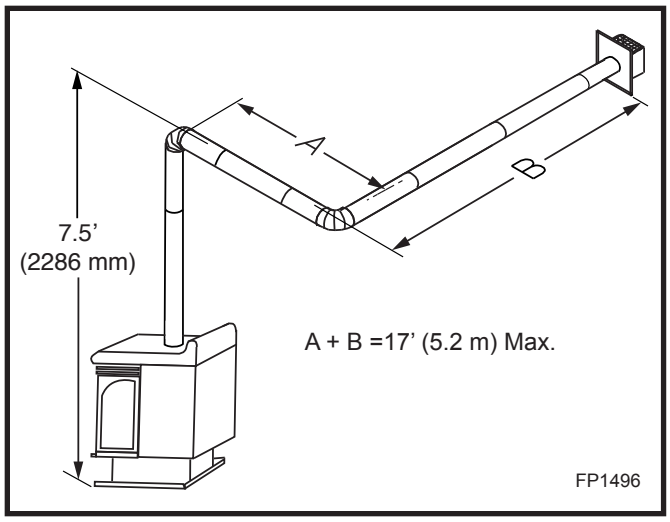


Fig. 10 90° elbow used in horizontal vent run.

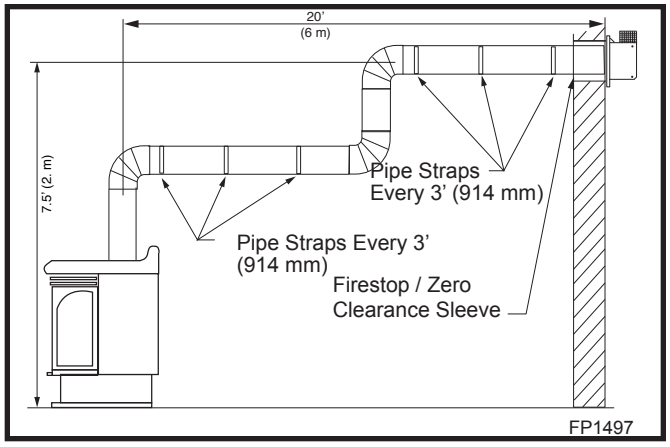


Fig. 11 90° elbow used to increase height.

Example: According to the chart the maximum horizontal vent length is 20' (6 m). However, if a 90° elbow is used in the horizontal vent, maximum horizontal vent length is reduced to 17' (5.2 m). In Figure 9, the total of Dim. A and Dim. B must not exceed 17' (5.2 m).

- The maximum number of 45° elbows permitted per installation is six (6). These elbows can be installed in either the vertical or horizontal run.
- For each 45° elbow installed in the horizontal run, the length of the horizontal run MUST be reduced by 18" (457 mm). This does not apply if the 45° elbows are installed on the vertical part of the vent system.
- The maximum number of elbow degrees in a system is 270°. (Fig. 12)

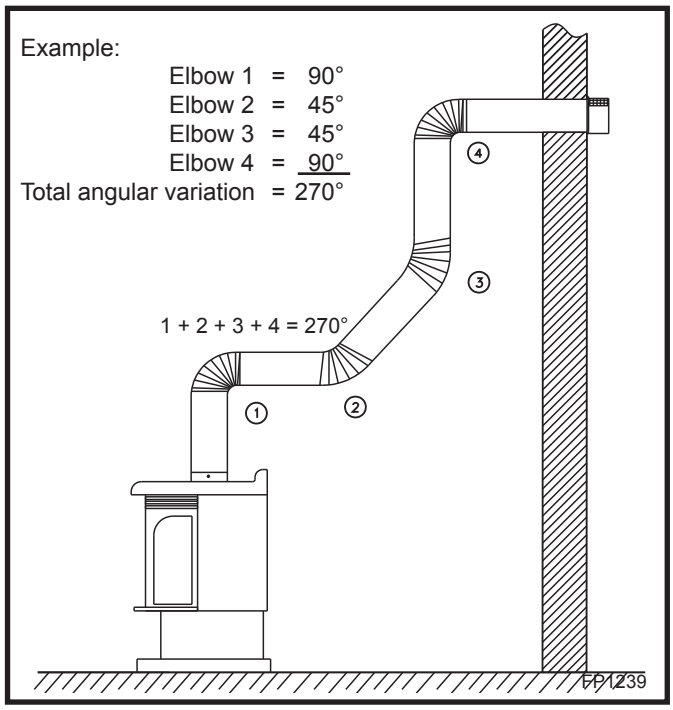


Fig. 12 Maximum elbow usage.

Vertical Sidewall Installations

STEP 1

Locate vent opening on the wall. It may be necessary to first position the fireplace and measure to obtain hole location. Depending on whether the wall is combustible or noncombustible, cut opening to size. (Fig. 13)

For combustible walls first frame in opening.

Combustible Walls: (Fig. 13) Cut a 9⅜"H x 9⅜"W (240 x 240 mm) hole through the exterior wall and frame as shown.

Noncombustible Walls: (Fig. 13) Hole opening must be 7½" (190 mm) in diameter.

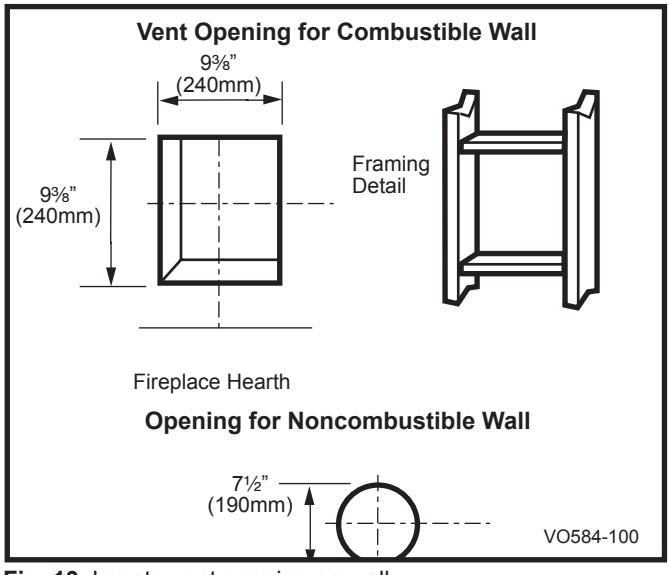


Fig. 13 Locate vent opening on wall.

STEP 2

Measure wall thickness and cut zero clearance sleeve parts to proper length (MAXIMUM 12”/305 mm). Assemble sleeve and attach to firestop with #8 sheet metal screws (supplied). Install firestop assembly. (Fig. 14)

Zero clearance sleeve is only required for combustible walls.

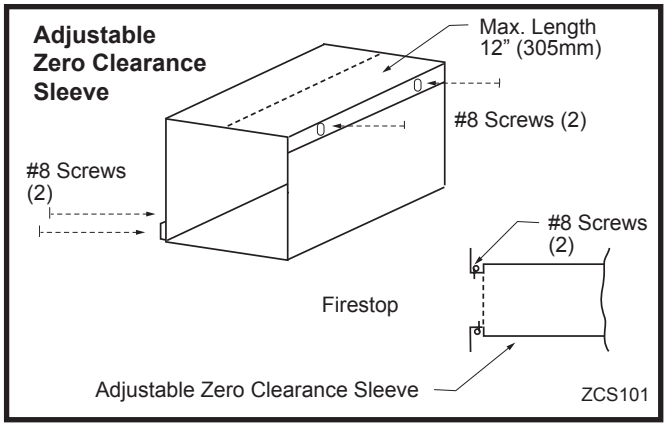


Fig. 14 Adjustable zero clearance sleeve.

STEP 3

Place fireplace into position. (Fig. 15) Measure the vertical height (X) required from the base of the flue collars to the center of the wall opening.

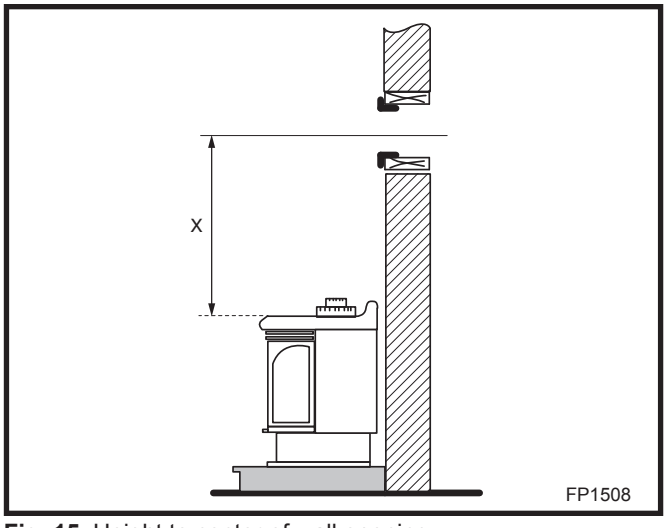


Fig. 15 Height to center of wall opening.

STEP 4

Apply a bead of high temperature sealant to the inner and outer flue collars of the fireplace and using appropriate venting component(s) attach to fireplace with three (3) screws. (Fig. 16) Follow with the installation of the inner and outer elbow. Again secure joints as described on Page 8.

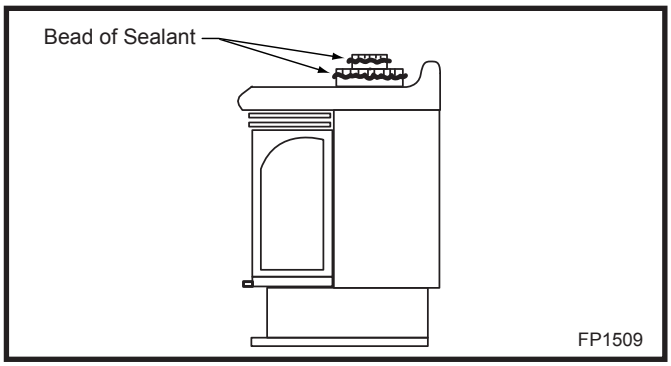


Fig. 16 Horizontal vent length.

STEP 5

Measure the horizontal length requirement including a 2” (51mm) overlap, ie from the elbow to the outside wall face plus 2” (51mm) (or the distance required if installing a second 90° elbow). (Fig. 17)

Always install horizontal venting on a level plane.

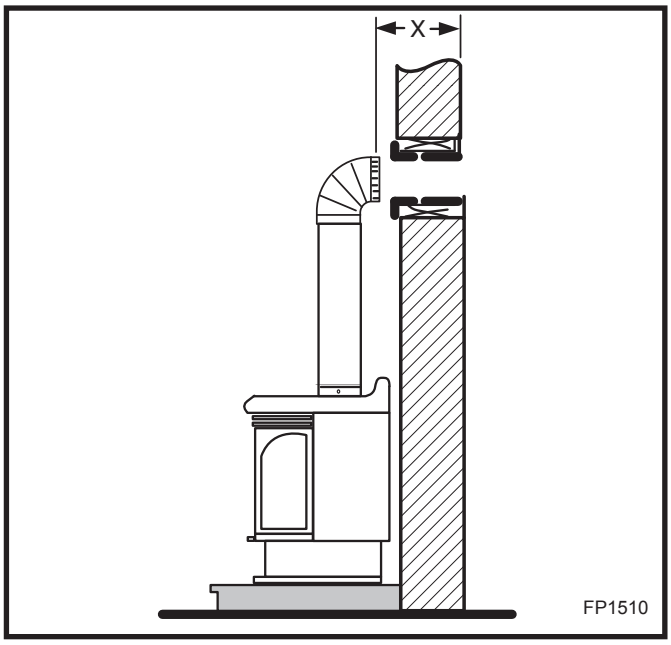


Fig. 17 Horizontal length to wall.

STEP 6

NOTE: If using charcoal wall plate Pt. #10000257, and collar Pt. # 52203-CG, put them in place before putting the pipe sections through the wall.

Use appropriate length of pipe sections - telescopic or fixed - and install the horizontal vent sections. The sections which go through the wall are packaged with the starter kit, and can be cut to suit if necessary. (Fig. 18)

Sealing vent pipe and firestop gaps with high temperature sealant will restrict cold air being drawn in around fireplace.

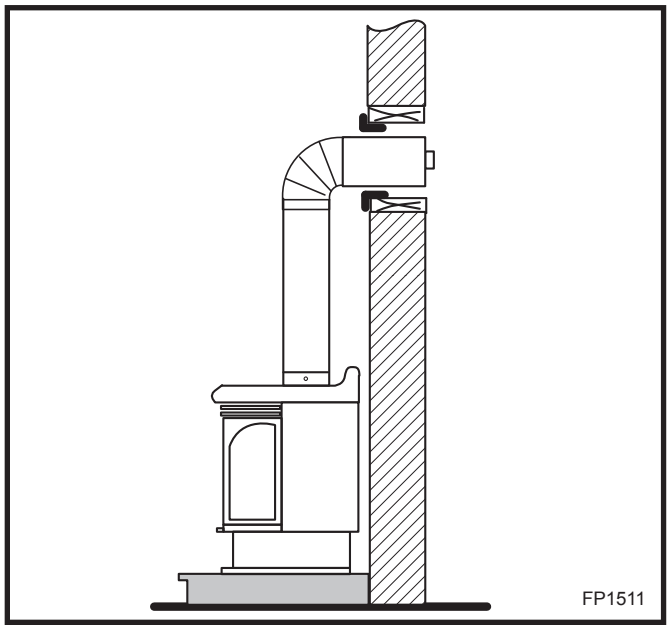


Fig. 18 Pipe sections through the wall.

STEP 7

Apply high temperature sealant to 4” (102 mm) and 7” (179 mm) collars or the termination one inch away from crimped end. Guide the vent terminations 4” and 7” collars into their respective vent pipes. Double check that the vent pipes overlap the collars by 2” (51 mm). Secure the termination to the wall with screws provided and caulk around the wall plate to weatherproof. (Fig. 19)

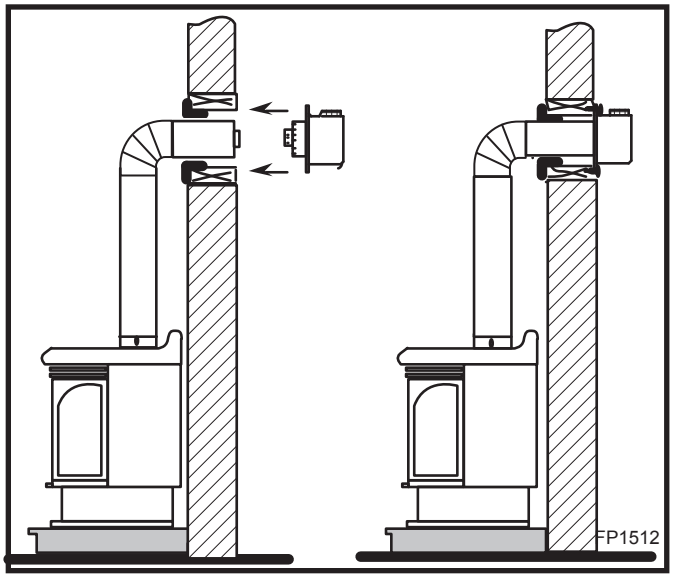


Fig. 19 Horizontal length to wall.

Support horizontal pipes every 3’ (914 mm) with metal pipe straps.

Check fireplace to make sure it is leveled and properly positioned.

Below Grade Installations

When it is not possible to meet the required vent terminal clearances of 12” (305 mm) above grade level a snorkel vent kit is recommended. It allows installation depth of down to 7” (178 mm) below grade level. The 7” is measured from the center of the horizontal vent pipe as it penetrates through the wall.

If venting system is installed below ground, we recommend a window well with adequate and proper drainage.

Ensure sidewall venting clearances are observed.

If installing a snorkel, a minimum 24” (610 mm) vertical rise is necessary. The maximum horizontal run with the 24” (610 mm) vertical pipe is 36” (914 mm). This measurement is taken from the collar of the fireplace (or transition elbow) to the face of the exterior wall. Refer to the Sidewall Vent Graph for extended horizontal run if the vertical rise exceeds 24” (610 mm).

1. Establish vent hole through the wall. (Fig. 13)
2. Remove soil to a depth of approximately 16” (406 mm) below base of snorkel. Install drain pipe. Install window well (not supplied). Refill hole with 12” (305 mm) of coarse gravel leaving a clearance of approximately 4” (102 mm) below snorkel. (Fig. 20)
3. Install vent system.
4. Ensure a watertight seal is made around the vent pipe coming through the wall.
5. Apply high temperature sealant caulking (supplied) around the 4” and 7“ snorkel collars.
6. Slide the snorkel into the vent pipes and secure to the wall.
7. Level the soil to maintain a 4” (102 mm) clearance below snorkel. (Fig. 20)

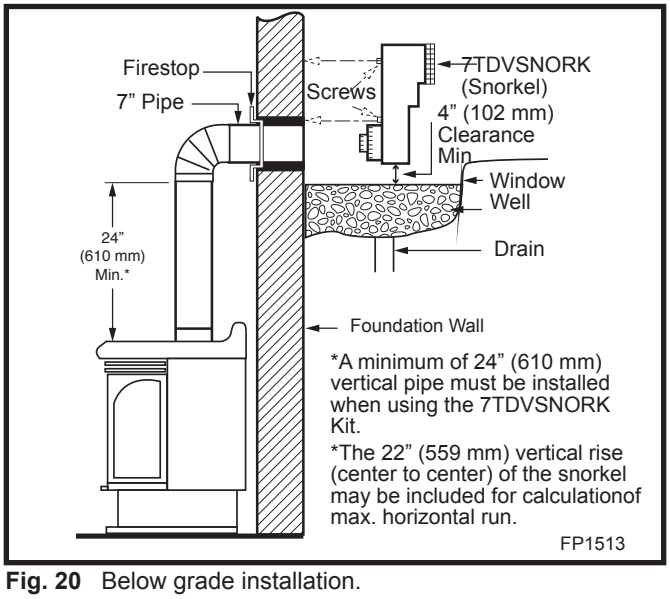


Fig. 20 Below grade installation.

Do not back fill around snorkel. A clearance of at least 4" (102 mm) must be maintained between snorkel and the soil.

If the foundation is recessed, use recess brackets (not supplied) for securing lower portion of the snorkel. Fasten brackets to wall first, then secure to snorkel with self drilling #8 x 1/2 sheet metal screws. It will be necessary to extend vent pipes out as far as protruding wall face. (Fig. 21)

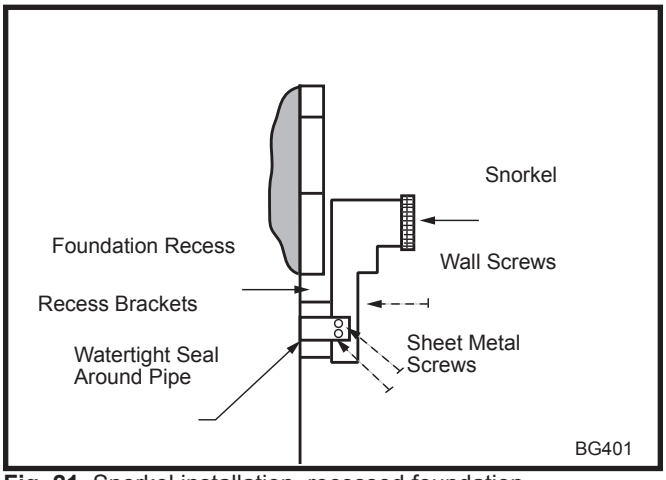


Fig. 21 Snorkel installation, recessed foundation.

Vertical Through-the-Roof Applications

This Gas Fireplace has been approved for:

- Vertical installations up to 40' (12 m) in height. Up to a 10' (3 m) horizontal vent run can be installed within the vent system using a maximum of two 90° elbows.
- Up to two 45° elbows may be used within the horizontal run. For each 45° elbow used on the horizontal level the maximum horizontal length must be reduced by 18" (457 mm).
  Example: Maximum horizontal length
  0 x 45° elbows = 10' (3 m)
  1 x 45° elbows = 8½' (2.6 m)
  2 x 45° elbows = 7' (2.1 m)
- A minimum of an 8' (2.4 m) vertical rise.
- Two sets of 45° elbows offsets within these vertical installations. From 0 to a maximum of 8' (2.4 m) of vent pipe can be used between elbows. (Fig. 22)
- 7DVCS must be used to support offsets. (Fig. 22) This application will require that you first determine the roof pitch and use the appropriate starter kit. (Refer to Venting Components List)

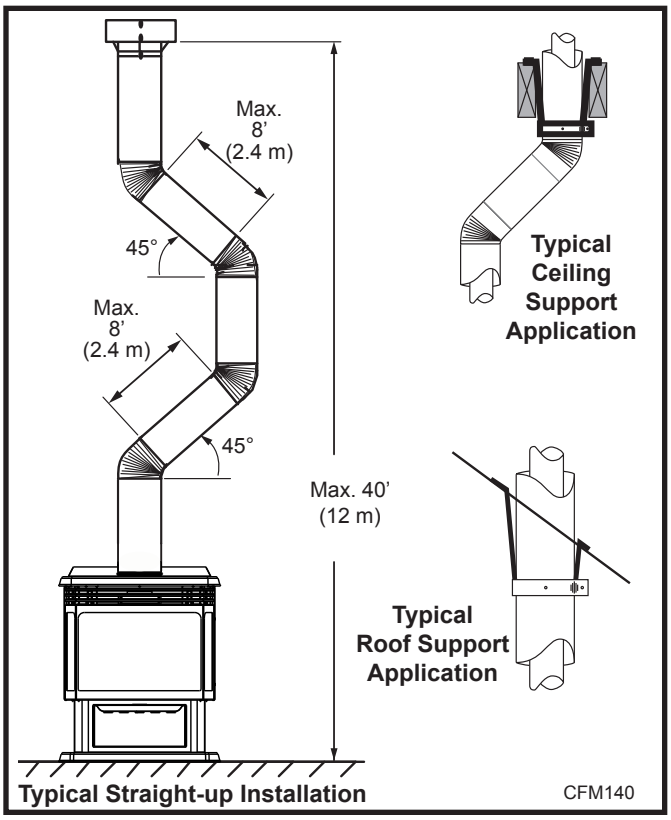


Fig. 22 Vertical through-the-roof installation.

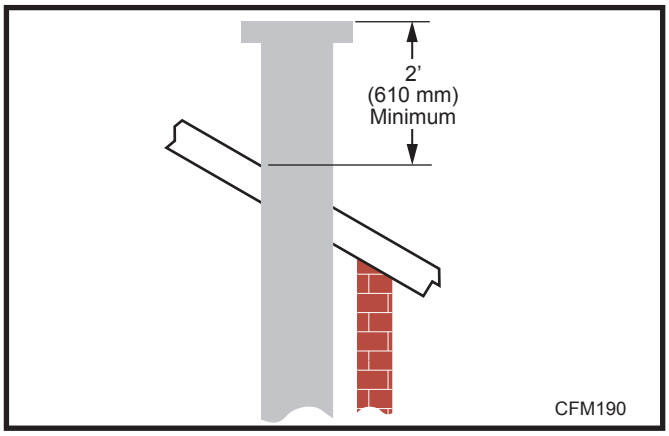


Fig. 23 Proper vent height.

Vertical Through-the-Roof Installation

1. Locate your fireplace.
2. Plumb to center of the 4" (102 mm) flue collar from ceiling above and mark position.
3. Cut opening equal to 9⅜" x 9⅜" (240 x 240 mm).
4. Proceed to plumb for additional openings through the roof. In all cases, the opening must provide a minimum of 1" (25 mm) clearance to the vent pipe, i.e., the hole must be at least 9⅜" x 9⅜" (240 x 240 mm).
5. Place fireplace into position.
6. Place firestop(s) #7DVFS or Attic Insulation Shield #7DVAIS into position and secure. (Fig. 24)

7. Install roof support (Fig. 22) and roof flashing making sure upper flange of flashing is below the shingles. (Fig. 25)
8. Install appropriate pipe sections until the venting is above the flashing. (Fig. 25)
9. Install storm collar and seal around the pipe.
10. Add additional vent lengths for proper height. (Fig. 23)
11. Apply high temperature sealant to 4” and 7” collars.

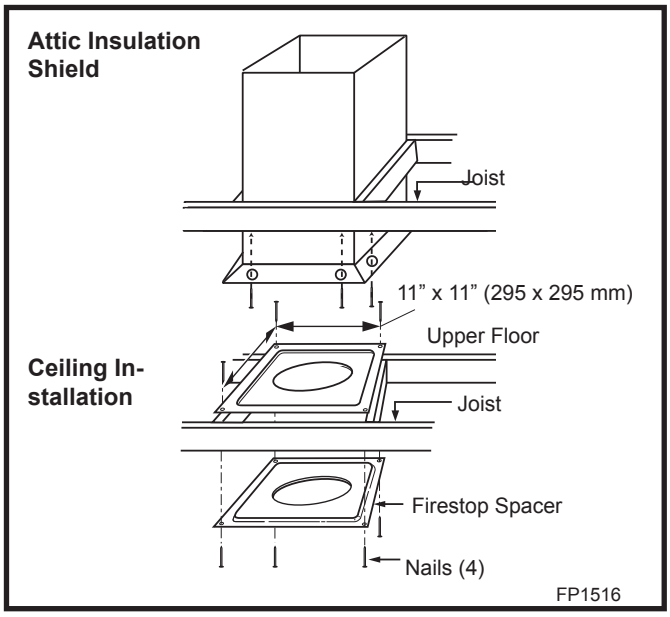


Fig. 24 Place firestop spacer(s) and secure.

If there is a room above ceiling level, firestop spacer must be installed on both the bottom and the top side of the ceiling joists. If an attic is above ceiling level a 7DVAIS (Attic Insulation Shield) must be installed.

The enlarged ends of the vent section always face downward. (Fig. 25)

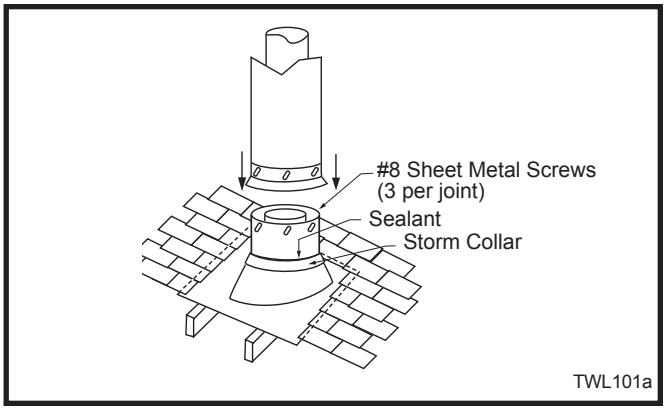
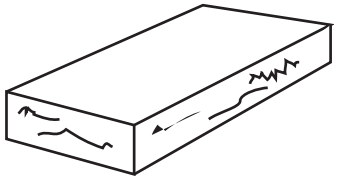
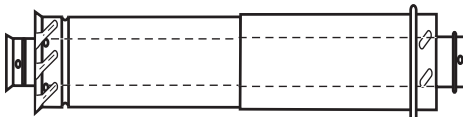
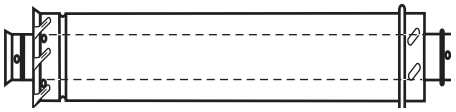
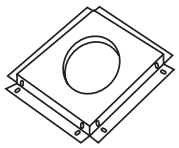
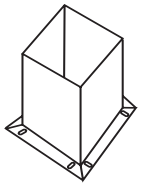


Fig. 25 Roof flashing.

Twist Lock Venting Components

	Starter Kit - Model 7TFSMSK Starter Kit - Model 7TFSDVSK Starter Kit - Model 7TDVSKV - Vertical Venting for 7TDVSKV-A, order 1/12 to 6/12 roof pitch for 7TDVSKV-B, order 7/12 to 12/12 roof pitch for 7TDSKV-F, order flat roof Starter Kit - Model 7TFSDVSKS - Snorkel Kit for below grade installation
	45° Elbow Kit 7TFSDV45 for Vertical Installation Offsets
	90° Transition Elbow Kit 7TFSDV90 fo Vertical Sidewall Applications or Through-the-Roof
	Telescopic Vent Sections 7TDVP1218 12” to 18” adjustable length 7TDVP3564 35” to 64” adjustable length
	Pipe sections for vertical or horizontal venting Model 7TDVP8” 4 per box Model 7TDVP12” 4 per box Model 7TFSDVP24” Model 7TDVP36” Model 7TFSDVP48”
	Firestop Spacer Model 7DVFS
	Attic Insulation Shield Model 7DVAIS
	Vertical/Horizontal Combination Offset Support Model 7DVCS

Operating Instructions

Glass Information

Only glass approved by CFM Corporation may be used for replacement. The use of substitute glass will void all product warranties.

Take care to avoid breaking the glass.

Under no circumstances is this fireplace to be operated without the front glass or with a broken glass. Replacement of the glass (with gasket) as supplied by the manufacturer should be done by a licensed qualified service person.

Window Frame Assembly Removal

1. Turn the gas supply OFF (Refer to Lighting Instructions).
2. If the unit has been operating allow time for the components to cool.
3. Open the two side doors.
4. Open the clamps on the two sides. (Fig. 26)
5. Pull the frame forward.
6. To reinstall window frame assembly, follow the above procedure in reverse.

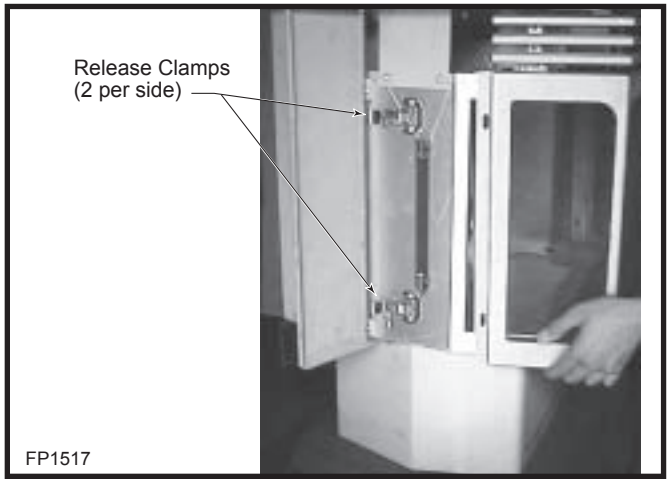


Fig. 26 Window frame removal.

Glass Cleaning

It is necessary to periodically clean the glass. During start-up condensation, which is normal, forms on the inside of the glass. This condensation causes lint, dust and other airborne particles to cling to the glass surface.

Also initial paint curing may deposit a slight film on the glass. It is therefore recommended that the glass be cleaned two or three times with a non-ammonia based household cleaner and warm water (We recommend gas fireplace glass cleaner) within the first few weeks of operation.

After the initial cleaning process the glass should be cleaned two or three times during each operating season depending on the environment in the house.

Clean the glass after the first two weeks of operation.

Do not clean glass when hot.

Do not use abrasive cleaners.

Do not strike or slam glass.

Log Identification Chart

Logs	RFSDV24	RFSDV34
Log Ember Bed	--	KR7
Log - Front Left	KR13	KR8
Log - Front Right	KR14	KR9
Log - Rear	--	KR10
Log - Top Left	--	KR11
Log - Top Right	--	KR12
Log - Rear Left	KR15	--
Log - Rear Right	KR16	--

Log Set and Lava Rock Material Installation

For Model RFSDV24 (Refer to Fig. 27)

1. Remove window frame assembly. (Refer to Window Frame Assembly Removal section)
2. Remove logs from packaging.

As with all plastic items - these logs and their packaging are not toys and should be kept away from children and infants.

3. Place rear left log (KR15) with one end onto the left rear bracket while the rest of the log sets on the center of the rear log support.
4. Place the rear right log (KR16) onto the right side of the rear log support. Ensure the log's bottom holes are located on the two studs of the support.
5. Place front left log (KR13) onto the left cut out of the rear log while the front left end of this log will set against the back wall of the front grate.
6. Place the front right log (KR14) in position by resting the holes under one end of this log located over the knob on the rear left log while the other end of the log set against the right end of the front grate. (Fig. 27)
7. Place burner lava rock over front area of the burner.

For Model RFSDV34 (Refer to Fig. 28)

1. Remove window frame assembly. (Refer to Window Frame Assembly Removal section)
2. Remove logs from packaging.

As with all plastic items - these logs and their packaging are not toys and should be kept away from children and infants.

3. Place rear log (KR10) n rear bracket (ensure log is seated properly, leveled and centered to the unit) so it will not move from side to side and it is firmly positioned on the bracket.
4. Slip front ember log (KR7) down behind the front deflector.
5. Place front left log (KR8*) on top of burner, left side. Using the bottom holes in the log, locate it into the left bracket log locator studs.
6. Place front right log (KR9) on top of burner, right side. Use log's bottom holes to locate it into the right bracket log locator studs.
7. Place burner lava rock on top of burner between the ember log and the two front logs.
8. Place top left log (KR11) onto locator notches. Ensure the log is secure.
9. Place top right log (KR12) onto locator notches. Ensure the log is secure.

Figure 27
RFSDV24

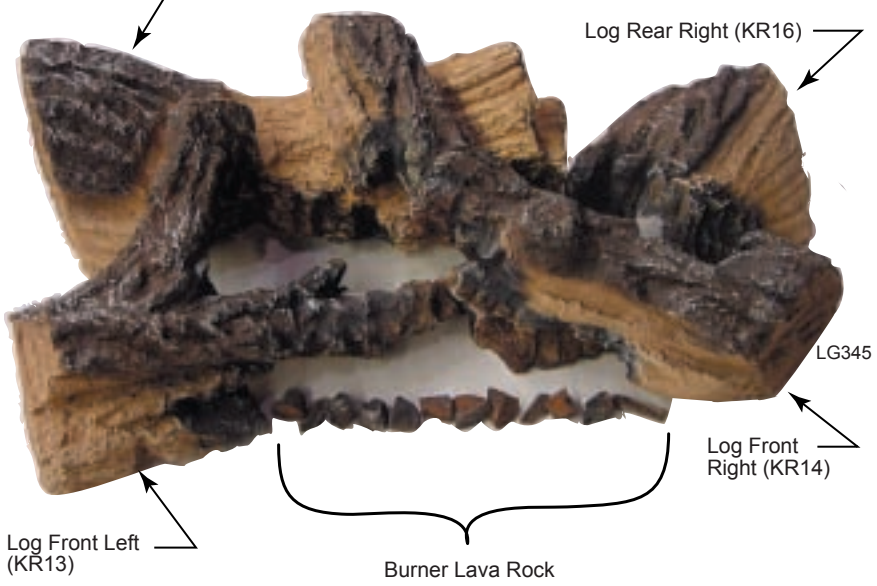
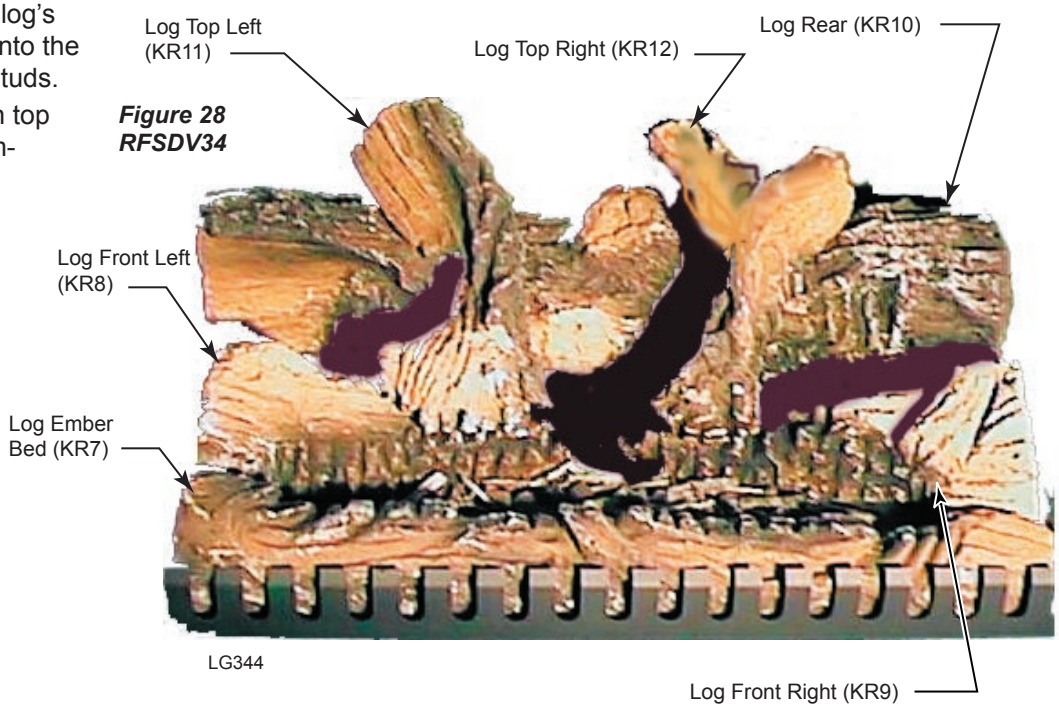


Figure 28
RFSDV34



Flame & Temperature Adjustment

RN/RP Models

For units equipped with 'HI/LO' valves the flame adjustment is accomplished by rotating the 'HI/LO' adjustment knob located near the center of the gas control valve. (Fig. 29)

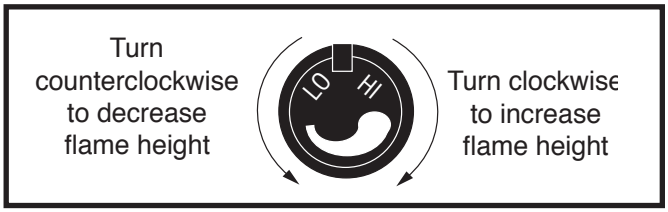


Fig. 29 Flame adjustment knob for Honeywell valve.

RFN/RFP Models

For units equipped with the Honeywell Radio Frequency control valve, all adjustments are performed with the use of a remote transmitter. Refer to instructions packaged with the transmitter or Page 20 in this manuals for operating instructions.

Flame Characteristics

It is important to periodically perform a visual check of the pilot and burner flames. Compare them to the pictorials illustrated below (Fig. 30-31).

If the flame patterns appear abnormal contact a qualified service provider for service and adjustment.

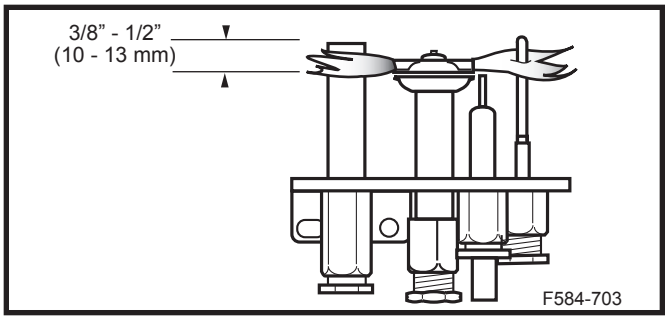
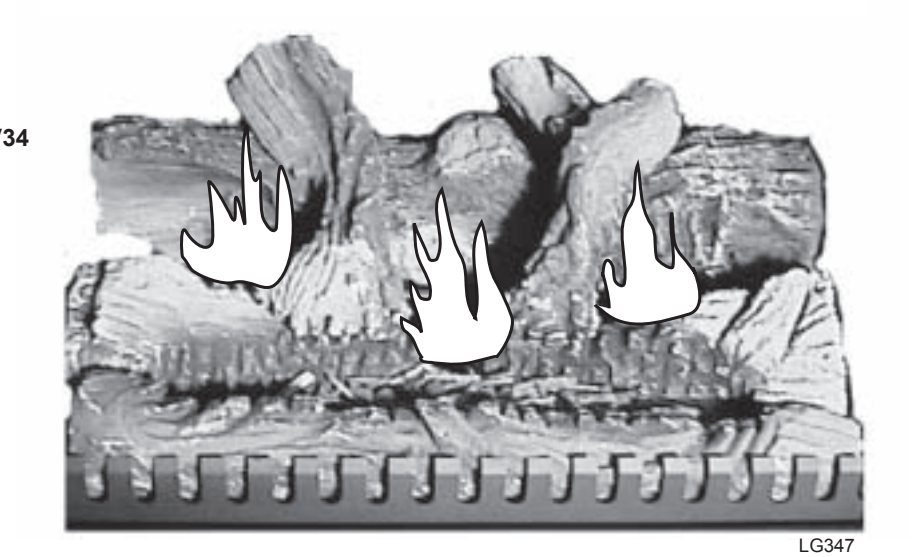


Fig. 30 Correct pilot flame appearance.

Figure 31

RFSDV24

RFSDV34



Lighting and Operating Instructions

FOR YOUR SAFETY READ BEFORE LIGHTING

WARNING:If you do not follow these instructions exactly, a fire or explosion may result causing property damage, personal injury or loss of life.

A. This heater has a pilot which must be lit manually. When lighting the pilot follow these instructions exactly.

B. BEFORE LIGHTING smell all around the heater area for gas. Be sure to smell next to the floor because some gas is heavier than air and will settle on the floor.

WHAT TO DO IF YOU SMELL GAS

- **Do not try to light any fireplace**
- **Do not touch any electric switch**
- **Do not use any phone in your building**
- **Immediately call your gas supplier from a neighbor's phone.**

Follow the gas supplier's instructions.

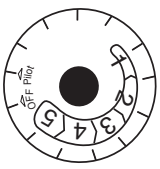
- **If you cannot reach your gas supplier, call the Fire Department**

C. Use only your hand to push in or turn the gas control knob. Never use tools. If the knob will not push in or turn by hand, do not try to repair it, call a qualified service technician. Applying force or any attempted repair may result in a fire or explosion.

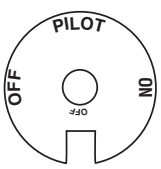
D. Do not use this fireplace if any part has been under water. Immediately call a qualified service technician to inspect the heater and to replace any part of the control system and any gas control which has been under water.

Lighting Instructions

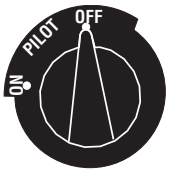
1. **STOP!** Read the safety information above.
2. Turn off all electrical power to the fireplace.
3. For MN/MP/TN/TP appliances ONLY, go on to Step 4. For RN/RP appliances turn the ON/OFF switch to "OFF" position or set thermostat to lowest level.
4. Open control access panel.
5. Push in gas control knob slightly and turn clockwise ↷ to "OFF".



Euro SIT

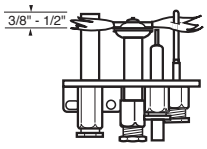


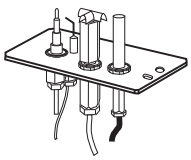
SIT NOVA

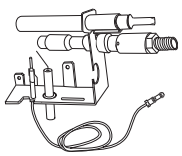


Honeywell

6. Wait five (5) minutes to clear out any gas. Then smell for gas, including near the floor. If you smell gas, STOP! Follow "B" in the safety information above. If you do not smell gas, go to the next step.
7. Remove glass door before lighting pilot. (See Glass Frame Removal section).
8. Visibly locate pilot by the main burner.
9. Turn knob on gas control counterclockwise ↶ to "PILOT".
10. Push the control knob all the way in and hold. Immediately light the pilot by repeatedly depressing the piezo spark ignitor until a flame appears. Continue to hold the control knob in for about one (1) minute after the pilot is lit. Release knob and it will pop back up. Pilot should remain lit. If it goes out, repeat steps 5 through 8.







- If knob does not pop up when released, stop and immediately call your service technician or gas supplier.
- If after several tries, the pilot will not stay lit, turn the gas control knob to "OFF" and call your service technician or gas supplier.

11. Replace glass door.
12. Turn gas control knob to "ON" position.
13. For RN/RP appliances turn the ON/OFF switch to "ON" position or set thermostat to desired setting.
14. Turn on all electrical power to the fireplace.

To Turn Off Gas To Heater

1. Turn the ON/OFF switch to Off position or set the thermostat to lowest setting.
2. Turn off all electric power to the fireplace if service is to be performed.
3. Open control access panel.
4. Push in gas control knob slightly and turn clockwise ↷ to "OFF". Do not force.
5. Close control access panel.

Instructions for RF Comfort Control Valve

The Comfort Control Valve allows remote control of temperature, fan and flame appearance.
NOTE: The antenna should hang in free air away from grounded metal.

Operation

1. If the manual switch is in remote position, switch it to LOCAL. (Fig. 32)
2. Turn the pilotstat knob counterclockwise from OFF to the PILOT position, push the knob down, and hold in position. The pilot valve opens and allows gas to flow to the pilot burner.
3. Push plunger on the piezo until the pilot burner is lit. When the pilot burner is lit, the LED on the control will come on after approximately 40 seconds and will be continuously red. When the light turns off which will be approximately 10 seconds after it has been continuously red, the receiver/valve is fully powered.

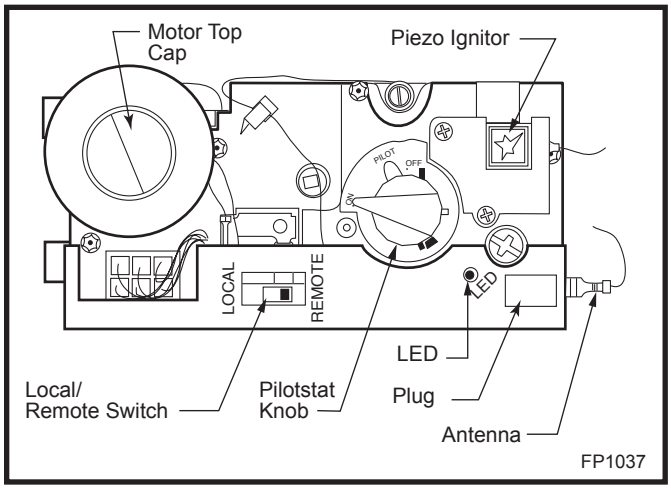


Fig. 32 Comfort control valve.

4. Release the knob. The shaft will move upward. The pilot burner should now stay burning. If the pilot burner goes out, repeat step 2.
5. Turn the knob counterclockwise to the ON position. If the manual switch is in the LOCAL position, the main burner will turn on immediately.
6. ON the initial use of a transmitter, a recognition operation is required between the receiver/valve and transmitter. Change the switch from LOCAL to REMOTE. Press the fan or flame button on the transmitter within 30 seconds. The LED will blink indicating the transmitter will now work with the receiver/valve. If the switch continues in the REMOTE position, the transmitter will now control the main valve, flame modulation level and fan control.
7. If the manual switch is in the LOCAL position, the valve will be at the highest fixed pressure setting. The transmitter will control the fan only.

Shut Off Procedure

If the manual switch is in the REMOTE position, the transmitter can shut off the main burner and fan. However, the control is still on and a command from the transmitter can turn on the main burner or fan.

To shut off the system, turn the pilotstat knob clockwise to the OFF position. This action closes the main gas and safety valves. The transmitter cannot turn on the main burner or fan.

Transmitter Operation

Off Mode

In the OFF mode, the fireplace flame and fan are off, the display will show OFF and displays the room temperature. If the receiver is in REMOTE mode, the fireplace will shut off.

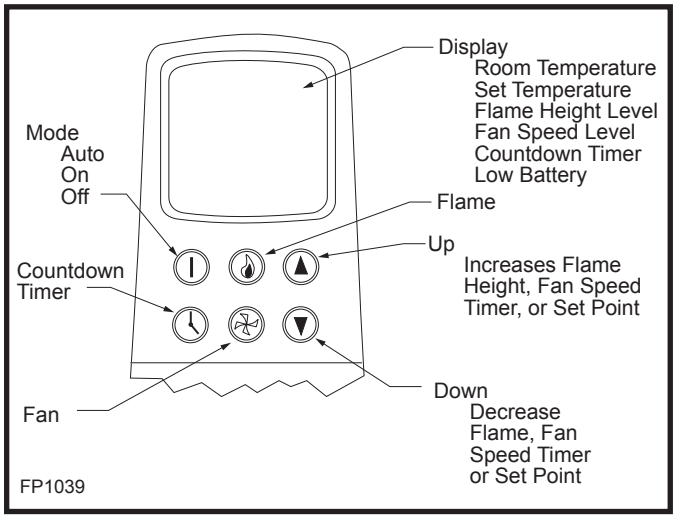


Fig. 33 Transmitter diagram.

On (Manual) Mode

In the ON mode, the room temperature, flame and fan levels will be shown. MANUAL will appear next to both the flame and fan icons.

When the control is in the ON mode, the flame and fan levels, and delay timer are changed with the up and down buttons. To change the flame level, press the flame button followed by an arrow key. To change the fan level, press the fan key followed by an arrow key. Pushing the arrow key once will change the level by one unit.

Delay Timer Mode

The shut off delay timer has a maximum of 2 hours and a minimum of zero minutes. To change the timer level, press the time key followed by an arrow key. Pushing the key once will change the timer by 10 minutes.

Auto Mode

In the AUTO mode, the room temperature, set temperature, flame and fan levels will be shown. AUTO will appear next to both the flame and fan icons.

When the control is in the AUTO mode, the main burner will turn on/off or modulate based on the heat needed to maintain the set temperature. The flame level will change automatically to optimize the heat output needed to maintain the set temperature. To change the set temperature, press the up or down key. Pushing a key once will change the temperature by one degree.

In the AUTO mode, the fan speed will increase with increasing flame height or decrease with decreasing flame height. “AUTO” is displayed next to the flame and fan icons.

Fan Override During Auto Mode

If a lower or higher fan speed is desired when operating in the AUTO mode, the fan speed can be overridden by pushing the fan button followed by the up or down key. Pushing a key once will change the fan level by one unit. In this mode “AUTO” is displayed next to the flame icon and “MANUAL” is displayed next to the fan icon.

Change Between F/C Temperature Units

Push the up and down arrow keys simultaneously for at least 3 seconds to toggle between Fahrenheit and Celsius units.

Disable Thermostat Function

To disable the thermostat function in the AUTO mode, push the time and down keys simultaneously for at least 3 seconds.

To Change Batteries

1. Remove cover on the backside of the transmitter. Install 3 AAA batteries as shown and reattach cover.
2. Once steps 1-3 in OPERATION are completed, receiver/valve and transmitter are now ready. Press any button on transmitter for recognition process to occur between the receiver/valve and transmitter.
3. Use functions as described in TRANSMITTER section.

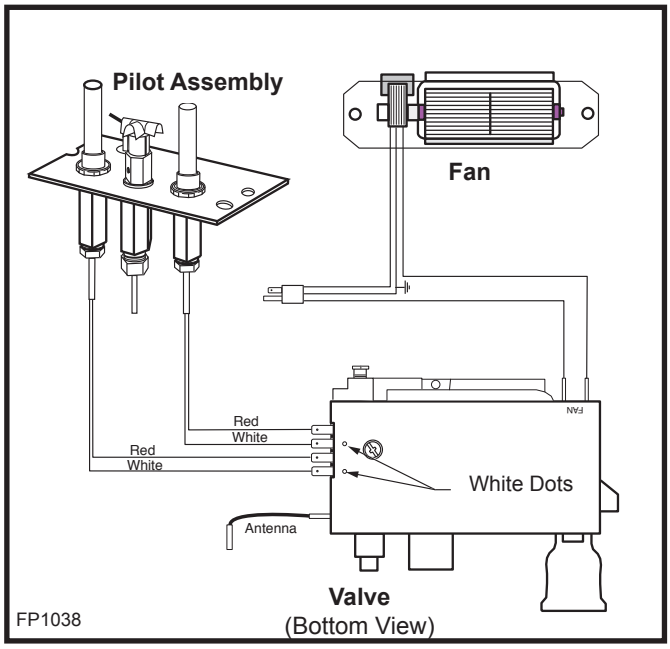


Fig. 34 Comfort Valve wiring diagram.

Troubleshooting

1. Locate LED light on valve.
2. LED will blink after every valid command received by the transmitter; this is not an error.
3. Failure codes may occur anytime after pilot burner is lit.
4. Sequence is failure code followed by light not blinking for 30 seconds.
5. In the event of multiple failure codes, next failure code follows previous failure code by approximately 3 seconds.

If an Error Code 3 is observed while performing the testing, complete the following:

1. Make sure the spade connectors are pushed all the way on. If the Error Code 3 is still showing, then go to the next step.
2. Switch the front two thermopile leads with the back two. Be sure the white lead is connected to the spade with the white dot next to it. If the Error Code 3 is still showing, replace the thermopiles.

If an Error Code 8 is observed while performing the testing, complete the following:

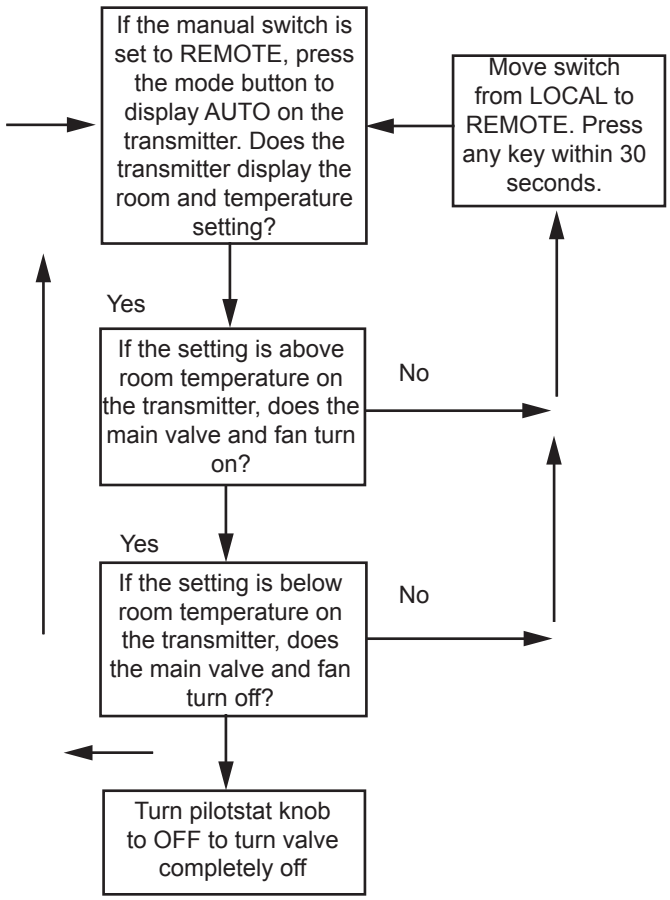
1. Confirm the valve is not in REMOTE mode.
   - If the valve is producing Error Code 8 and in REMOTE mode, the valve is defective and should be replaced.
   - If the valve is in LOCAL mode and producing Error Code 8, then go to the next step.

2. Slide the Remote/Local switch to REMOTE and teach the valve a transmitter (refer to Item 6, page 32). The Error Code will clear itself after approximately 1½ minutes and return to normal operation.

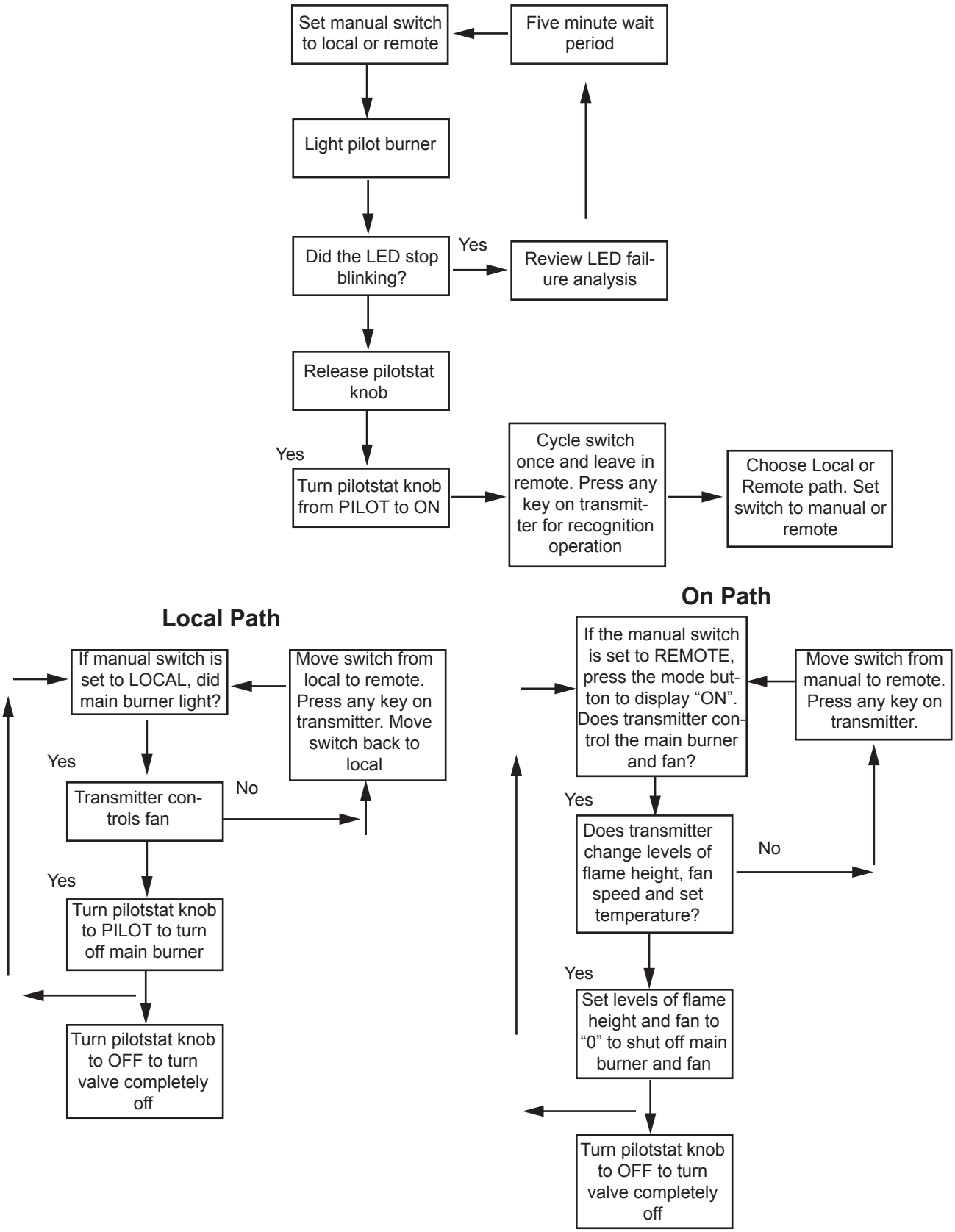
LED Count	Service Action
8	Replace valve
7	Confirm stepper motor connection exists
5	Confirm fan connection exists and works
4	Confirm gas type; jumper in place
3	Replace thermopiles
2	Turn fan ON

NOTE: Some keys are not active.

Auto Path


If the manual switch is set to REMOTE, press the mode button to display AUTO on the transmitter. Does the transmitter display the room and temperature setting?
Move switch from LOCAL to REMOTE. Press any key within 30 seconds.
Yes
If the setting is above room temperature on the transmitter, does the main valve and fan turn on?
No
Yes
If the setting is below room temperature on the transmitter, does the main valve and fan turn off?
No
Turn pilotstat knob to OFF to turn valve completely off

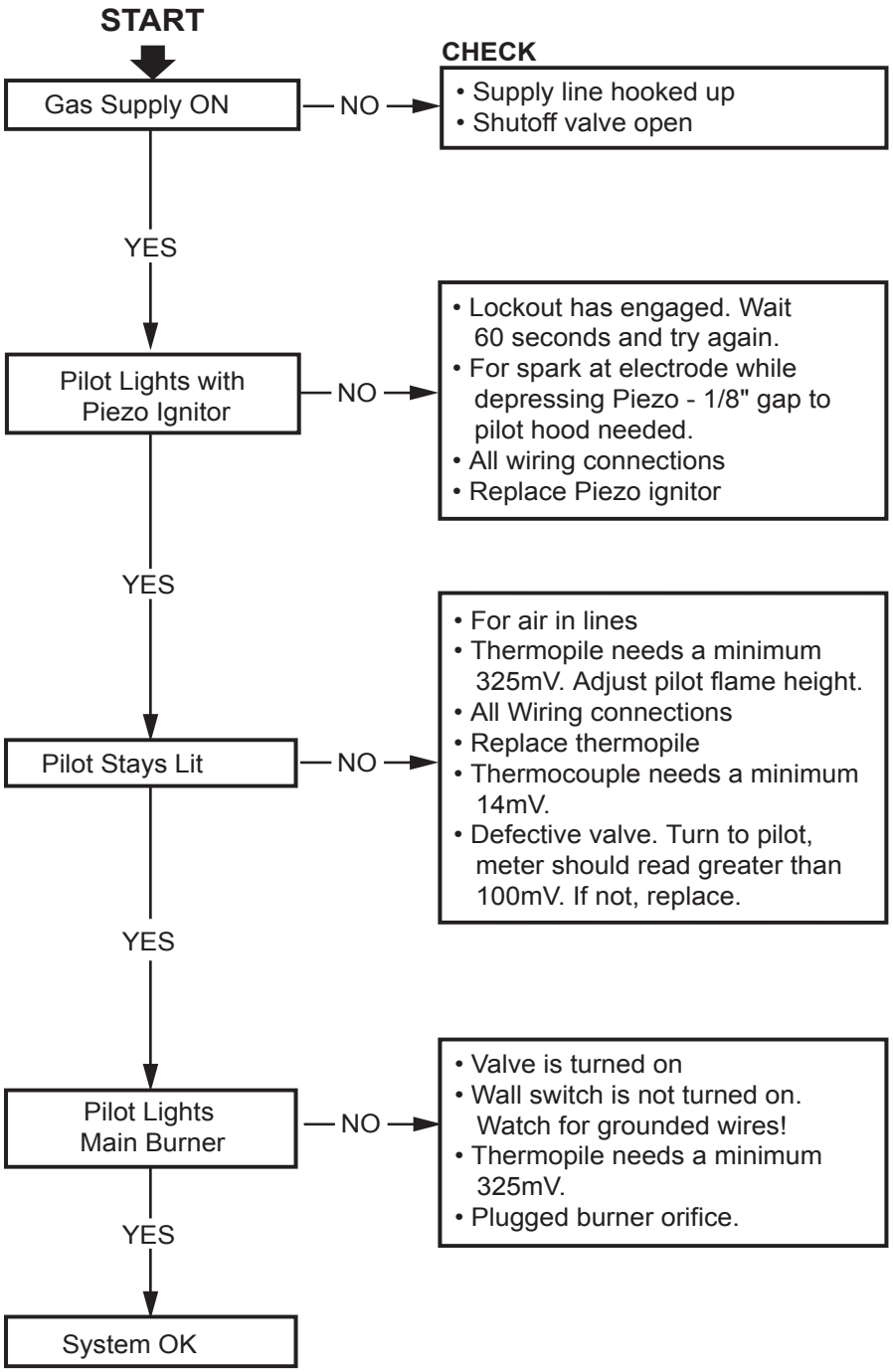
Comfort Valve system control sequence of operation with transmitter


Set manual switch to local or remote
Five minute wait period
Light pilot burner
Did the LED stop blinking?
Yes
Review LED failure analysis
Release pilotstat knob
Yes
Turn pilotstat knob from PILOT to ON
Cycle switch once and leave in remote. Press any key on transmitter for recognition operation
Choose Local or Remote path. Set switch to manual or remote
Local Path
If manual switch is set to LOCAL, did main burner light?
Move switch from local to remote. Press any key on transmitter. Move switch back to local
Yes
Transmitter controls fan
No
Yes
Turn pilotstat knob to PILOT to turn off main burner
Turn pilotstat knob to OFF to turn valve completely off
On Path
If the manual switch is set to REMOTE, press the mode button to display "ON". Does transmitter control the main burner and fan?
Move switch from manual to remote. Press any key on transmitter.
Yes
Does transmitter change levels of flame height, fan speed and set temperature?
No
Yes
Set levels of flame height and fan to "0" to shut off main burner and fan
Turn pilotstat knob to OFF to turn valve completely off

Troubleshooting

Honeywell VS8420 Standing Pilot

Remove Glass Panel Before Servicing.


START
Gas Supply ON
NO
CHECK
• Supply line hooked up
• Shutoff valve open
YES
Pilot Lights with Piezo Ignitor
NO
• Lockout has engaged. Wait 60 seconds and try again.
• For spark at electrode while depressing Piezo - 1/8" gap to pilot hood needed.
• All wiring connections
• Replace Piezo ignitor
YES
Pilot Stays Lit
NO
• For air in lines
• Thermopile needs a minimum 325mV. Adjust pilot flame height.
• All Wiring connections
• Replace thermopile
• Thermocouple needs a minimum 14mV.
• Defective valve. Turn to pilot, meter should read greater than 100mV. If not, replace.
YES
Pilot Lights Main Burner
NO
• Valve is turned on
• Wall switch is not turned on. Watch for grounded wires!
• Thermopile needs a minimum 325mV.
• Plugged burner orifice.
YES
System OK

FP396a

Maintenance

Burner and Burner Compartment

It is important to keep the burner and the burner compartment clean. At least once per year the logs and lava rock/ember material should be removed and the burner compartment vacuumed and wiped out. Remove and refit the logs as per the instructions in this manual.

Always handle the logs with care as they are fragile and may also be hot if the fireplace has been in use.

FK24 Fan Assembly

The fan unit requires periodic cleaning. At least once per month in the operating season open the lower louvre panels and wipe or vacuum the area around the fan to remove any build up of dust or lint.

Brass Trim

Clean the brass trim pieces using a soft cloth lightly dampened with lemon oil. Do not use water or household cleaners on any brass components.

Cleaning the Standing Pilot Control System

The burner and control system consist of:

- burner tube
- gas orifice
- pilot assembly
- thermopile
- millivolt gas valve

Most of these components may require only an occasional checkup and cleaning and some may require adjustment. **If repair is necessary, it should be performed by a qualified technician.**

1. Turn off pilot light at gas valve.
2. Allow fireplace to cool if it has been operating.
3. Remove window frame assembly. (Refer to Window Frame Assembly Removal section.)
4. Remove logs.
5. Vacuum burner compartment especially around orifice primary air openings.
6. Visually inspect pilot. Brush or blow away any dust or lint accumulation.
7. Reinstall logs.
8. Ignite pilot - Refer to Lighting Instructions.
9. Reinstall window frame assembly.

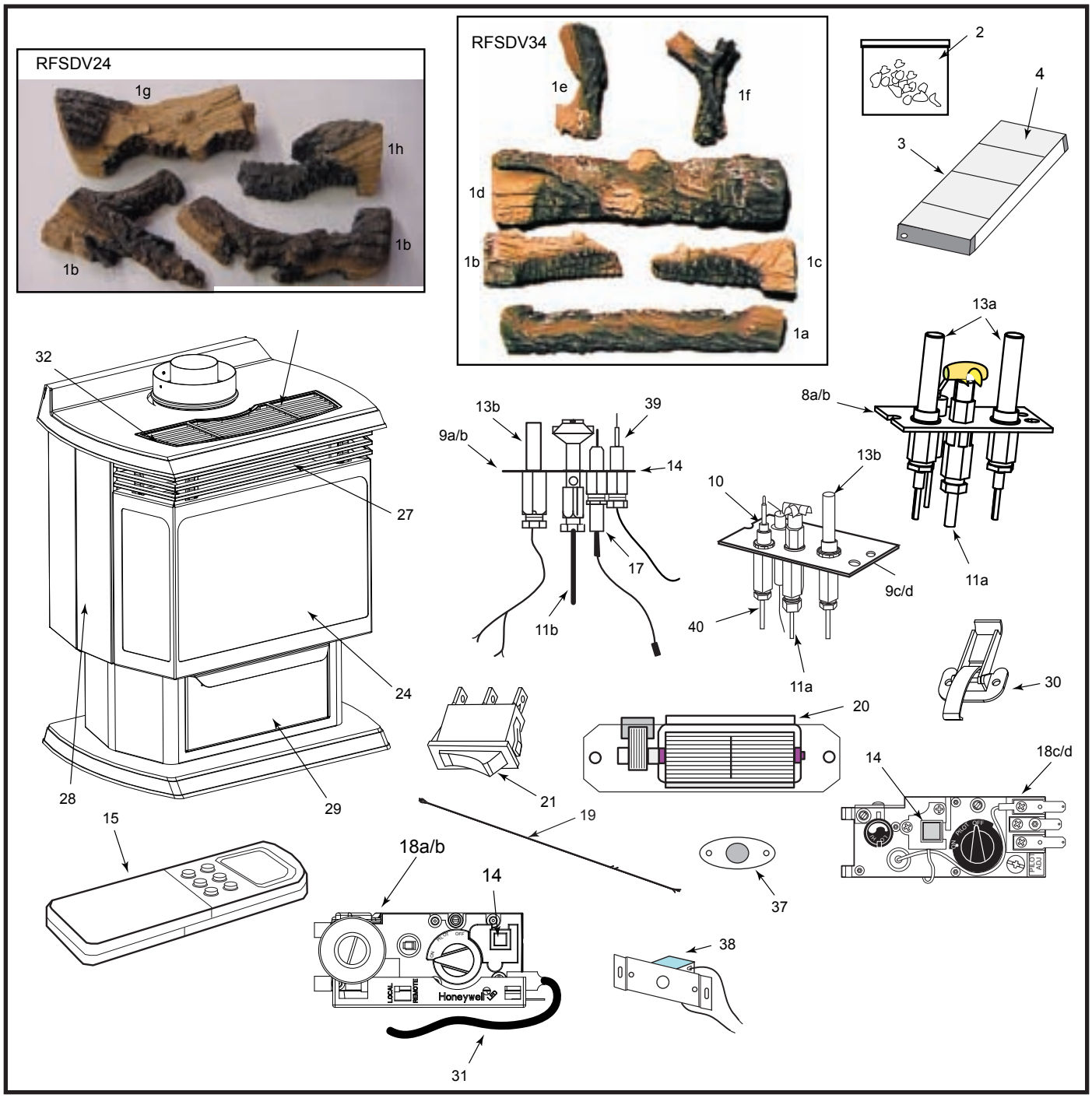
To obtain proper operation, it is imperative that the pilot and burner's flame characteristics are steady, not lifting or floating.

Typically, the top 3/8" to 1/2" of the thermopile should be engulfed in the pilot flame. (Refer to Page 18, Figure 30)

To adjust pilot burner: (by qualified service technician)

1. Remove pilot adjustment cap
2. Adjust pilot screw to provide properly sized flame.
3. Replace pilot adjustment cap.

The primary air shutter is set at factory and should only be adjusted, if necessary, by a qualified service technician.



CFM Corporation reserves the right to make changes in design, materials, specifications, prices and discontinue colors and products at any time, without notice.

RFSDV24/34 Units: V21A00, V21B00, U21K00, U21L00

Ref.	Description	RFSDV24	RFSDV34
1.	Log Set Complete	10003538	10001763
1a.	Log - Ember Bed	--	KR7
1b.	Log - Front Left	KR13	KR8
1c.	Log - Front Right	KR14	KR9
1d.	Log - Rear	--	KR10
1e.	Log - Top Left	--	KR11

RFSDV24/34 (continued)

Ref.	Description	RFSDV24	RFSDV34
1f.	Log - Top Right	--	KR12
1g.	Log - Rear Left	KR15	--
1h.	Log - Rear Right	KR16	--
2.	Lava Rock	57897	57897
3.	Burner Housing Assembly w/tiles	10003559	10001272
4.	Ceramic Tile (single)	57803	57803
5a.	Orifice, Main Burner - Nat. (not shown)	Refer to Rating Plate	
5b.	Orifice, Main Burner - Prop. (not shown)	Refer to Rating Plate	
5c.	Orifice, Front Burner - Nat. (not shown)	Refer to Rating Plate	
5d.	Orifice, Front Burner - Prop (not shown)	Refer to Rating Plate	
6a.	Orifice, Top Convertible Pilot - Nat. (not shown)	10002268	10002268
6b.	Orifice, Top Convertible Pilot - Prop. (not shown)	10002269	10002269
7a.	Orifice, Radio Frequency Pilot - Nat. (not shown)	--	20000908
7b.	Orifice, Radio Frequency Pilot - Prop (not shown)	--	20000907
8a.	Pilot Assembly, Radio Frequency - Nat.	--	20002266
8b.	Pilot Assembly, Radio Frequency - Prop.	--	20002268
9a.	Pilot Assembly, 3 way DV Top Conv. - Nat.	10002264	10002264
9b.	Pilot Assembly, 3 way DV Top Conv. - Prop.	10002265	10002265
9c.	Pilot Assembly, PSE - Nat.	--	10001741 (RMH)
9d.	Pilot Assembly, PSE - Prop.	--	10001742 (RMH)
10.	Pilot w/Electrode & Cable PSE	--	10002501
11a.	Pilot Tube w/fittings PSE	--	10003279
11b.	Pilot Tube w/fittings SIT	10001296	--
12.	Manifold Tube w/fittings (not shown)	10002492	57318
13a.	Thermopile, Radio Frequency	--	20002400
13b.	Thermopile, RN & RP	53373	53373
14.	Ignitor Piezo, Honeywell Valve	20000062	20000062
15.	Transmitter	--	20002047
16.	Manifold Assembly (not shown)	10003207	10000824
17.	Electrode ignitor w/cable 24” (not shown)	10001297	10001297 (RMH)
18a.	Valve, Honeywell Radio Frequency - Nat.	--	20003719
18b.	Valve, Honeywell Radio Frequency - Prop.	--	20003720
18c.	Valve, Honeywell, RN	10001782	10001782 (RMH)
18d.	Valve, Honeywell, RP	10001759	10001759 (RMH)
19.	Electric Cord Set, Radio Frequency Valve	--	20002541
20.	Fan Assembly w/bracket	54103	54103
21.	Remote ON/OFF Switch	53606	53606
22.	Wiring Harness - Remote Switch (not shown)	57265	57265
23.	Remote ON/OFF Switch Kit (not shown)	53859	53859
24.	Window Frame Assembly (complete with glass)	10003547	10001917
25.	Window Glass w/Gasket Assembly Kit (not shown)	10003549	10001916
26.	Window Glass Gasket Kit	10001983	10001983
27.	Front Louvre Assembly	10003537	10001370
28.	Cabinet Side Door	10003541	10001792
29.	Control Door Assembly	10003539	10001790
30.	Clamp	10000949	10000949
31.	Antennae	--	20003561

RFSDV24/34 (continued)

Ref.	Description	RFSDV24	RFSDV34
32.	Top Grille Panel	10001791	10001791
33.	Magnet, Ceramic Side Doors (not shown)	10001705	10001705
34.	Screen Cabinet Top	10001749	10001749
35.	Plate Relief w/Gasket Assembly (not shown)	10002862	10002862
36.	Front Grate Assembly - Charcoal Gray	10003535	--
37.	Sensor Fan	51704	--
38.	Speed Control	51738	--
39.	Thermocouple SIT	53373	--
40.	Relief Plate w/Gasket Assembly Burner Tray	--	10004192

For Use in Mobile Homes: Model RFSDV34RMH

This appliance may be installed as an OEM installation in a manufactured (mobile) home and must be installed in accordance with the manufacturer's instructions and the manufactured home construction and safety standard, Title 24 CFR, Part 3280 or Standard for Installation in Mobile Homes, CAN/CSA Z240 MH.

This appliance is only for use with the type(s) of gas indicated on the rating plate. A conversion kit is supplied with the appliance.

This gas fireplace should be installed by a qualified installer in accordance with local building codes, current CSA-B149.1 Installation Codes for Gas Burning Fireplaces and Equipment, and CAN/CSA Z240.4 Canada.

A manufactured home (mobile home) OEM installation must conform with the Manufactured Home Construction and Safety Standard, Title 24 CFR, Part 3280, or when such a standard is not applicable, the Standard for Manufactured Home Installations, ANSI NCSBCS A225.1, or Standard for Gas Equipped Recreational Vehicles and Mobile Housing CSA Z240.4.

The appliance when installed, must be electrically grounded in accordance with local codes or, in the absence of local codes, with the National Electrical Code, ANSI/NFPA 70, or the Canadian Electrical Code, CSA C22.1.

FOR SAFE INSTALLATION AND OPERATION PLEASE NOTE THE FOLLOWING:

1 . This fireplace gives off high temperatures and should be located out of high traffic areas and away from furniture and draperies.
2. Children and adults should be alerted to the hazards of the high surface temperatures of this fireplace and should stay away to avoid burns or ignition of clothing.
3. **CAUTION: Due to high glass surface temperature children should be carefully supervised when in the same room as fireplace.**
4. Under no circumstances should this fireplace be modified. Parts removed for servicing should be replaced prior to operating this fireplace again.
5. Installation and any repairs to this fireplace must be performed by a qualified installer, service agency or gas supplier. A professional service person should be contacted to inspect the fireplace annually. More frequent cleaning may be required due to excess lint and dust from carpeting, bedding material, etc.
6. Control compartments, burners and air passages in this fireplace should be kept clean and free of dust and lint. Make sure that the gas valve and pilot light are turned off before you attempt to clean this fireplace.
7. The venting system (chimney) of this fireplace should be checked at least once a year and if needed your venting system should be cleaned.
8. Keep the area around your fireplace clear of combustible materials, gasoline and other flammable vapour and liquids. This fireplace should not be used as a drying rack for clothing, nor should Christmas stockings or decorations be hung on or around the fireplace.
9. Under no circumstances should any solid fuels (wood, coal, paper or cardboard etc.) be used in this fireplace.
10. The flow of combustion and ventilation air must not be obstructed in any way.
11. When the fireplace is installed directly on carpeting, vinyl tile or any combustible material other than wood, this fireplace must be installed on a metal or wood panel extending the full width and depth of the fireplace.
12. This fireplace requires adequate ventilation and combustion air to operate properly.

NOTE: Model RFSDV34RMH must be firmly attached to the building.

Conversion Instructions

1. Disconnect the power to the unit and shut off the gas supply.
2. Remove the window frame assembly. (Refer to Window Frame Assembly Removal section.)
3. Carefully remove the logs
4. Remove the pilot assembly from bracket.
5. Remove the screws which are holding the burner housing assembly in place.
6. Remove the burner housing assembly.
7. Remove the main and front orifice and replace with the orifice supplied in the conversion kit. Use the small orifice size for the front burner and the bigger orifice size for the main burner.
8. Remove the compression fitting which holds the aluminium tubing in the pilot assembly. This will reveal the pilot orifice which must be replaced with the one provided in the conversion kit.
9. **Units with SIT Valve:** (refer to pictures in the installation instructions supplied with the conversion kit)
   a) Using a Torx T20 or slotted screwdriver, remove and save the three pressure regulator mounting screws (A), pressure regulator tower (B) and diaphragm (C).
   b) Ensure the rubber gasket (D) is properly positioned and install the new Hi/Lo pressure regulator to the valve using the new screws (E) supplied with the kit. Tighten screws securely. (Ref. torque: 25 inLb)
   c) Install the enclosed identification label (F) to the valve body where it can be easily seen.
   Units with Honeywell Valve:
   The Honeywell valve fitted to this unit is preset for LP gas. It is convertible to natural gas by the installation of a color coded "conversion screw." To insert the conversion screw, refer to the instructions and diagrams in the Honeywell Installation Instructions supplied in he conversion kit packaged with the RFSDV34RMH unit.
10. Reassemble the fireplace in the reverse order, except for the window frame assembly. Leave this off until the unit has been checked for leaks and the gas supply line has been bled.
11. After bleeding the gas line and checking for leaks with a soap solution, replace the window frame assembly. Fire up the unit, check the flame impingement on the logs, adjusting them if necessary. Check the manifold and supply pressures.

NOTE: If further assistance is required, refer to Troubleshooting and Parts List in this manual.

Optional Accessories

Fan Kits

FK24 Fan Assembly

This auxiliary fan system increases the efficiency of the circulation of the heating air.

The FK24 fan kit allows variable speed control of the circulation fan and also incorporates a heat sensor in the circuit.

Specifications

115 Volt / 60Hz / 56 Watts

Maintenance

The fan itself does not require regular maintenance, however periodic cleaning of the fan and the surrounding area is required.

Check the fan and the area around the fan assembly and wipe or vacuum at least once per month during the operating season.

Installation

NOTE: The FK24 is an option for Model RFSDV24; standard with model RFSDV34. Install fan before connecting gas line to fireplace.

1. Open front access door; remove the cover valve.
2. Remove pre-mounted fan bracket at the rear of the pedestal. Remember this location for reinstallation.
3. Open the fan kit; mount FK24 replacement fan bracket. (Fig. 37)
4. Install the fan through the opening of the front access door, with the outlet pointed up and the fan mounting bracket toward the rear of the fireplace. (Fig. 38) The fan mounts over two studs that hold the fan just below the firebox floor. Secure the fan in place with two nuts provided.
5. Locate the fan speed control/junction box on screw studs located on the right side of the cover valve. Tighten with nuts provided.
6. Install thermal sensor element on screw studs located to the right of the gas valve below the burner base.
7. Reinstall cover valve. Plug in grounded service cord to a convenient wall receptacle.

This fan assembly is furnished completely wired. It must be electrically connected and grounded in accordance with local codes.

US installations: Follow local codes and the National Electrical Code ANSI/NFPA No. 70.

Canadian installations: In the absence of local codes, follow current CSA C22.1 Canadian Electrical Code.

Disconnect the power supply before servicing the fan. Refer to Figure 35 for rewiring replacement components.

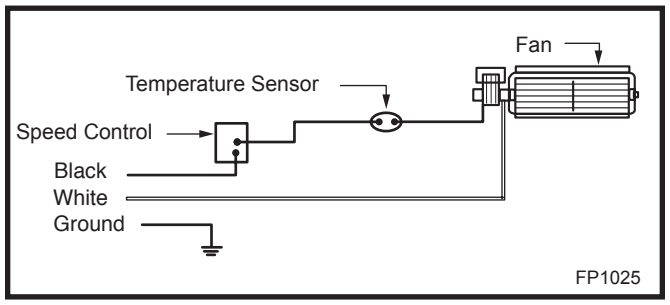


Fig. 35 FK24 fan wiring.

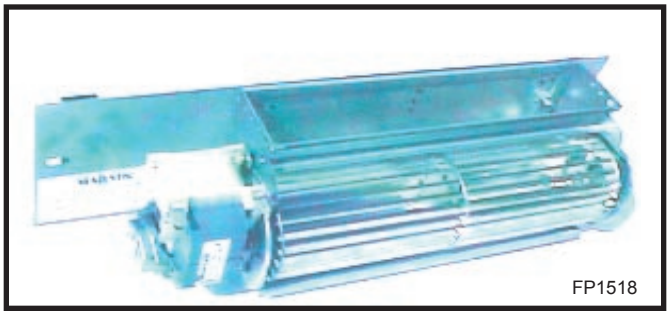


Fig. 36 FK24 fan with existing fan bracket.

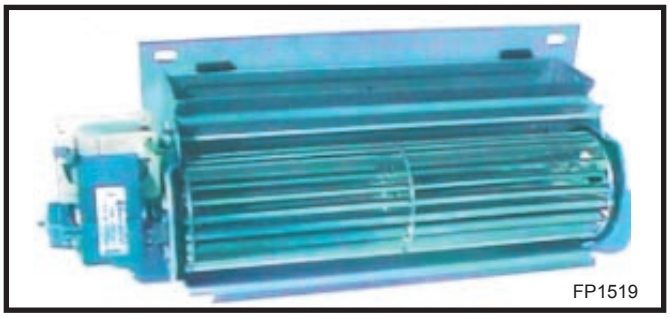


Fig. 37 FK24 fan kit with replacement fan bracket.

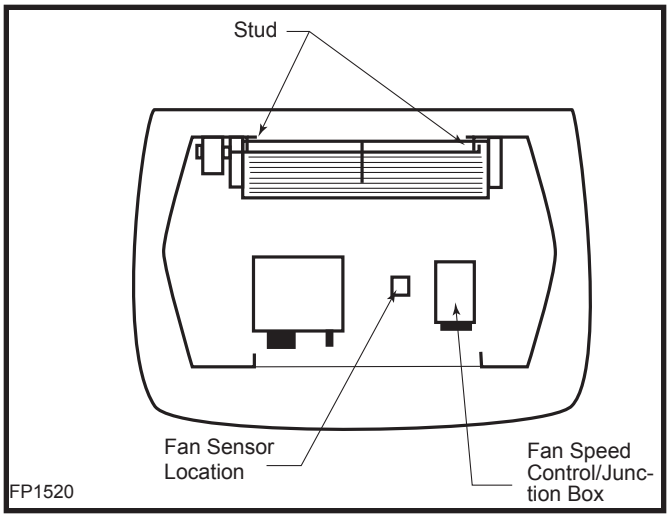


Fig. 38 FK24 fan installation.

Optional Gold Trim Kit

A decorative gold-plated window trim kit, Model RFSDV24TKG is available for the RFSDV24 Freestanding Fireplace.

Kit contents:

(1) Gold-plated window trim
(4) Magnets

Installation Procedure

1. Unpack the kit and confirm all parts are present.
2. It is very important to remove all the protective plastic wrap from the gold window trim.
3. Attach the magnets to the trim. (Fig. 39)
4. Position trim against the fireplace window frame assembly. The trim is held in place by the magnets.

NOTE: Only gold cleaner is to be used for this window trim. Do not use brass polish or household cleaners, as these products will damage the trim. Gold cleaner products can be obtained from any fireplace dealer.

Clean gold trim with a soft clean cloth slightly dampened with gold cleaner product. Buff with a soft dry cloth.

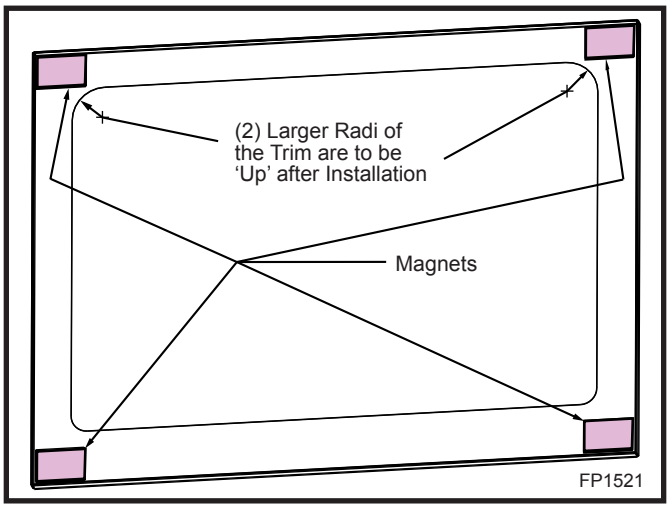


Fig. 39 RFSDV24TKG magnet locations.

Optional Brass Trim Kit

A decorative brass window trim kit, Model RFSDV34TKA is available for the RFSDV34 Freestanding Fireplace.

Kit contents:

(1) Brass window trim
(8) Magnets
(3) Brass trim rings (for the vent pipe joints)

Installation Procedure

1. Unpack the kit and confirm all parts are present.
2. It is very important to remove all the protective plastic wrap from the brass components
3. Attach the magnets to the trim. (Fig. 40)
4. Position trim against the fireplace window frame assembly. The trim will be held in place by the magnets.
5. Fit the brass rings in place around any visible vent joints.

NOTE: Use only lemon oil to clean this window trim as directed below. Lemon oil can be obtained from supermarkets and hardware stores. Do not use brass polish or household cleaners, as these products will damage the trim.

Clean brass trim with a soft clean cloth slightly dampened with lemon oil. Buff with a soft dry cloth.

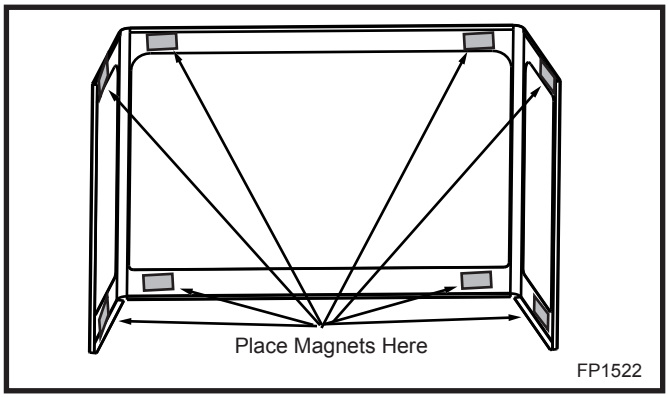


Fig. 40 RFSDV34TKA magnet locations.

Remote Control Options

These remote controls are available as an option only on fireplaces fitted with RN/RP gas control valves.

Model	Function Controlled
RC1	ON/OFF
RC2	ON/OFF and Temperature
MRC3	ON/OFF and Temperature control with a digital display and a programmable 24 our clock
IMT	Wall mounted thermostat control

LIMITED LIFETIME WARRANTY

PRODUCT COVERED BY THIS WARRANTY

All Vermont Castings gas stoves, gas inserts, and gas fireplaces, and all Majestic brand gas fireplaces equipped with an Insta-Flame Ceramic Burner, or standard steel tube burner.

BASIC WARRANTY

CFM Corporation (hereinafter referred to collectively as the Company) warrants that your new Vermont Castings or Majestic Gas Fireplace/ Stove is free from manufacturing and material defects for a period of one year from the date of purchase, subject to the following conditions and limitations.

EXTENDED LIFETIME WARRANTY

The heat exchanger, where applicable, and combustion chamber of every Vermont Castings or Majestic gas product is warranted for life against through wall perforation. All appliances equipped with an Insta-Flame Ceramic Burner have limited lifetime coverage on the ceramic burner plaque. Warrantees are made to the original owner subject to proof of purchase and the conditions and limitations listed on this Warranty Document

COMPONENT WARRANTY

CAST IRON: All external and internal cast iron parts are warranted for a period of three years.

Note: On porcelain enamel finished external parts and accessories The Company offers no Warranty on chipping of enamel surfaces. Inspect all product prior to accepting it for any damage to the enamel.

The salt air environment of coastal areas or a high humidity environment can be corrosive to the porcelain enamel finish. These conditions can cause rusting of the cast iron beneath the porcelain enamel finish, which will cause the finish to flake off.

Dye lot variations with replacement parts and/or accessories can occur and are not covered by warranty.

GLASS DOORS: Glass doors are covered for a period of one year. Glass doors are not warranted for breakage due to misuse or accident. Glass doors are not covered for discoloration or burned in stains due to environmental issues, or improper cleaning and maintenance.

BRASS PLATED PARTS AND ACCESSORIES: Brass parts should be cleaned with Lemon oil only. Brass cleaners cannot be used. Mortar mix and masonry cleaners may corrode the brass finish. The Company will not be responsible for, nor will it warrant any brass parts which are damaged by external chemicals or down draft conditions.

GAS VALVES: Gas valves are covered for a period of one year

ELECTRONIC AND MECHANICAL COMPONENTS: Electronic and mechanical components of the burner assembly are covered for one year. All steel tube burners are warranted for one year.

ACCESSORIES: Unless otherwise noted all components and CFM Corporation company supplied accessories are covered for a period of one year.

CONDITIONS AND LIMITATIONS

- This new Vermont Castings or Majestic product must be installed by a competent, authorized, service contractor. A licensed technician, as prescribed by the local jurisdiction must perform any installation/service work. It must be installed and operated at all times in accordance with the Installation and Operating instructions furnished with the product. Any alteration, willful abuse, accident, or misuse of the product shall nullify this warranty.
- This warranty is non-transferable, and is made to the original owner, provided that the purchase was made through an authorized supplier of the Company.
- The customer must pay for any Authorized Dealer in-home travel fees or service charges for in-home repair work. It is the dealers option whether the repair work will be done in the customer's home or in the dealer's shop.
- If upon inspection, the damage is found to be the fault of the manufacturer, repairs will be authorized at no charge to the customer parts and/or labor.
- Any part and/or component replaced under the provisions of this warranty is covered for six months or the remainder of the original warranty, whichever is longest.
- This warranty is limited to the repair of or replacement of part(s) found to be defective in material or workmanship, provided that such part(s) have been subjected to normal conditions of use and service, after said defect is confirmed by the Company's inspection.
- The company may, at its discretion, fully discharge all obligations with respect to this warranty by refunding the wholesale price of the defective part(s)
- Any installation, labor, construction, transportation, or other related costs/expenses arising from defective part(s), repair, replacement, or otherwise of same, will not be covered by this warranty, nor shall the Company assume responsibility for same. Further, the Company will not be responsible for any incidental, indirect, or consequential damages except as provided by law.
- SOME STATES DO NOT ALLOW FOR THE EXCLUSION OR LIMITATIONS OF INCIDENTAL AND CONSEQUENTIAL DAMAGES OR LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATIONS MAY NOT APPLY TO YOUR CIRCUMSTANCES. THIS WARRANTY GIVES YOU SPECIFIC RIGHTS AND YOU MAY HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.
- All other warranties-expressed or implied- with respect to the product, its components and accessories, or any obligations/liabilities on the part of the Company are hereby expressly excluded.
- The Company neither assumes, nor authorizes any third party to assume on its behalf, any other liabilities with respect to the sale of this Vermont Castings or Majestic product
- The warranties as outlined within this document do not apply to chimney components or other non CFM Corporation accessories used in conjunction with the installation of this product..
- Damage to the unit while in transit is not covered by this warranty but is subject to claim against the common carrier. Contact the dealer from whom you purchased your fireplace/stove (do not operate the appliance as this might negate the ability to process the claim with the carrier).
- The Company will not be responsible for:
  a) Down drafts or spillage caused by environmental conditions such as near-by trees, buildings, roof tops, hills, or mountains.
  b) Inadequate ventilation or negative air pressure caused by mechanical systems such as furnaces, fans, clothes dryers, etc.
- This warranty is void if:
  a) The fireplace has been operated in atmospheres contaminated by chlorine, fluorine, or other damaging chemicals.
  b) The fireplace has been subjected to prolonged periods of dampness or condensation
  c) Any damages to the fireplace, combustion chamber, heat exchanger or other components due to water, or weather damage, which is the result of but not limited to, improper chimney/venting installation.
  d) Any alteration, willful abuse, accident, or misuse of the product has occurred.

IF WARRANTY SERVICE IS NEEDED…

1) Contact your supplier. Make sure you have your warranty, your sales receipt, and the model/serial number of your CFM Corporation product.
2) DO NOT ATTEMPT TO DO ANY SERVICE WORK YOURSELF.

Canada

ENERGUIDE

Look for the **EnerGuide** Gas Fireplace Energy Efficiency Rating in this brochure

Based on CSA P.4.1-02

Efficiency Ratings	
Model	**EnerGuide Ratings Fireplace Efficiency (%)**
RFSDV24RN	65.3
RFSDV24RP	65.3
RFSDV24RFN	65.3
RFSDV24RFP	65.3
RFSDV24EN	68.7
RFSDV24EP	68.7
RFSDV34RN	72.1
RFSDV34RP	72.1
RFSDV34RFN	72.1
RFSDV34RFP	72.1
RFSDV34EN	75.2
RFSDV34EP	75.2

NATIONAL FIREPLACE INSTITUTE NFI CERTIFIED www.nficertified.org

We recommend that our gas hearth products be installed and serviced by professionals who are certified in the U.S. by the National Fireplace Institute® (NFI) as NFI Gas Specialists.

CFM Corporation

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